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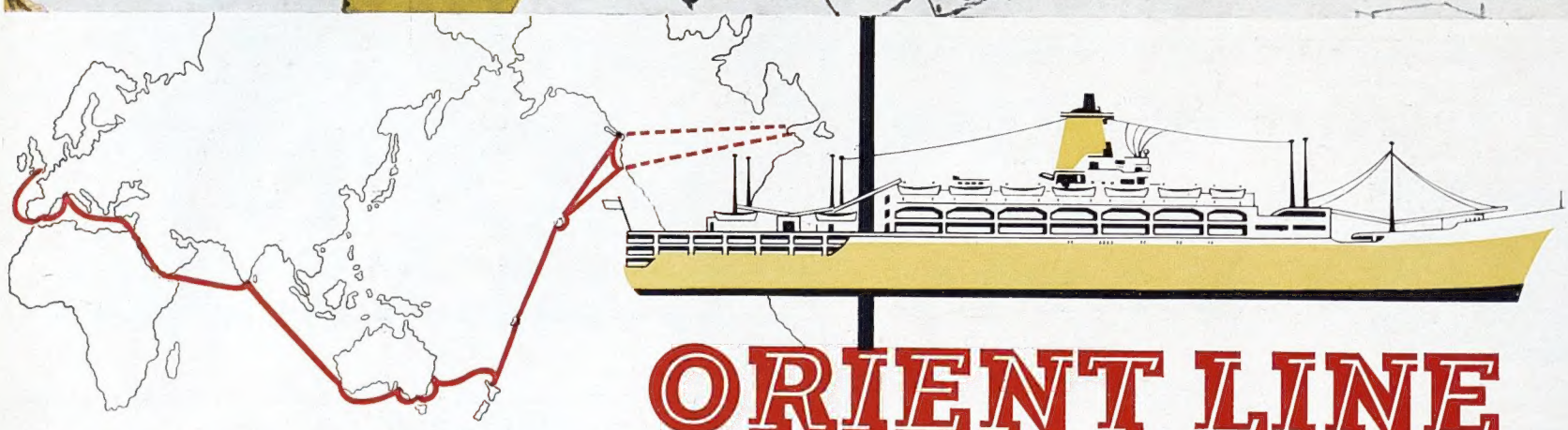

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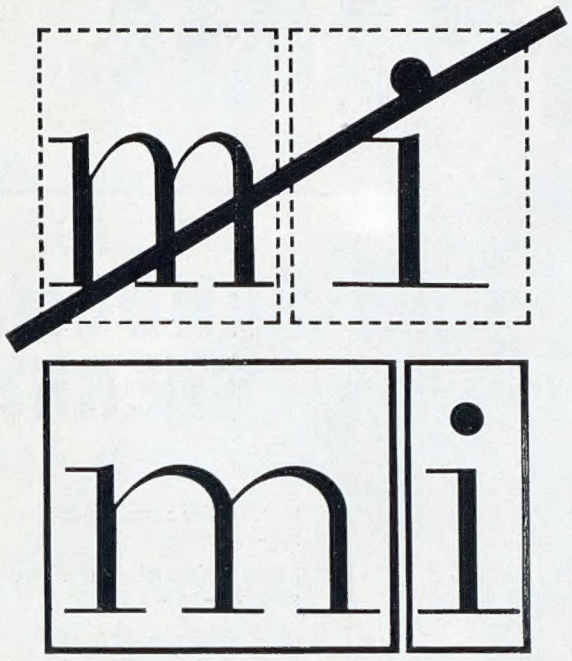

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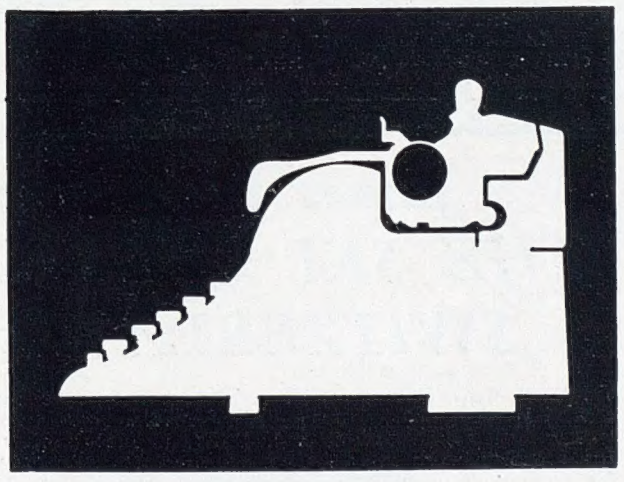

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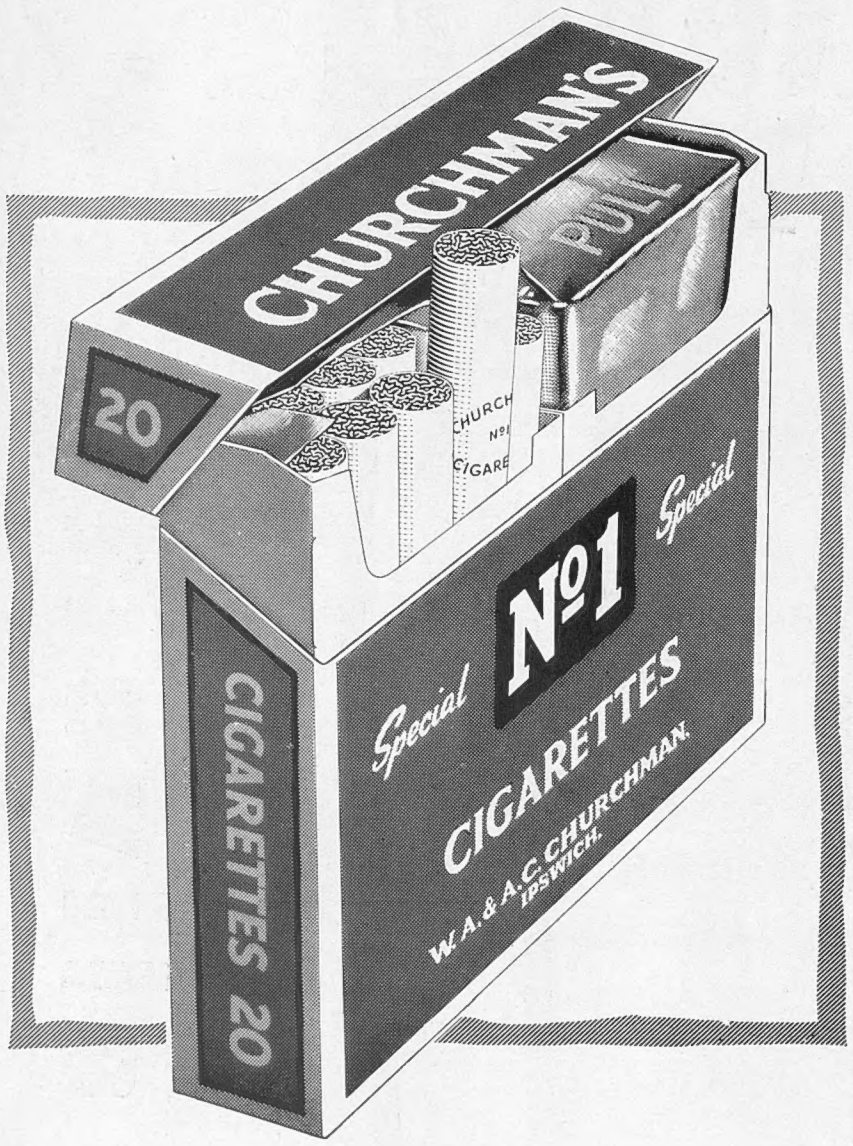

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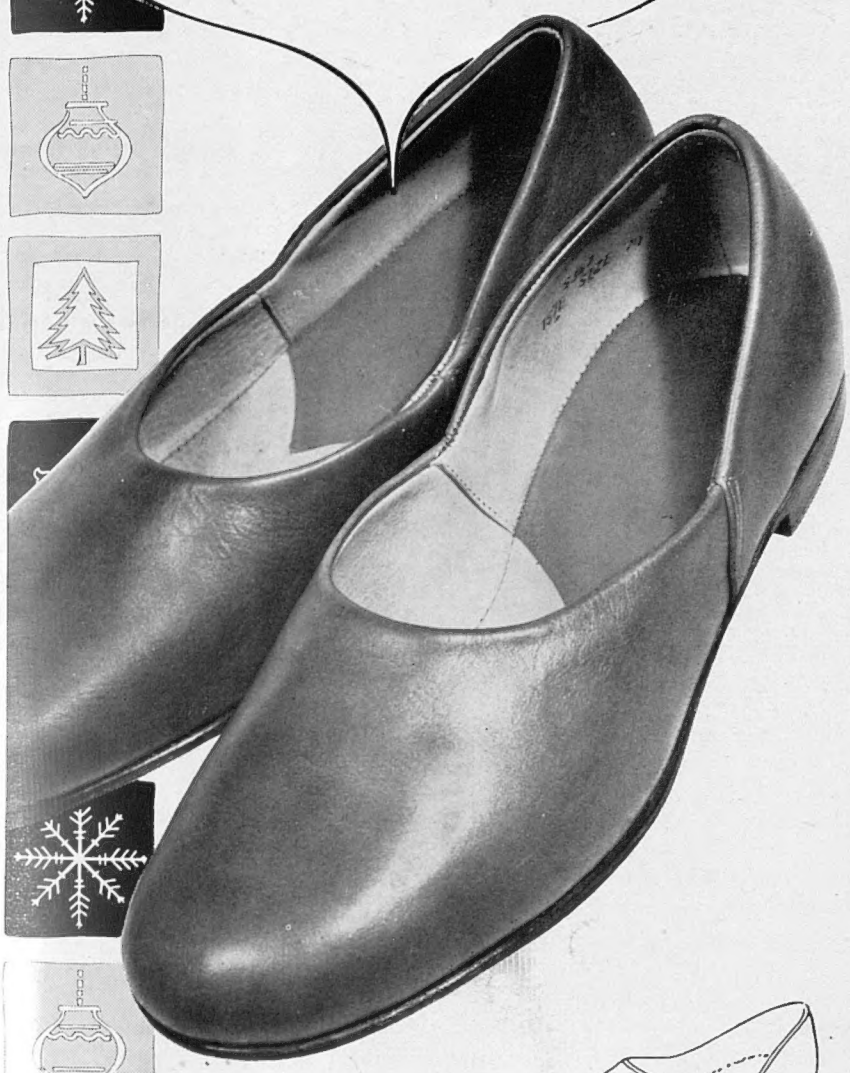

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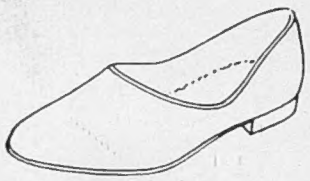

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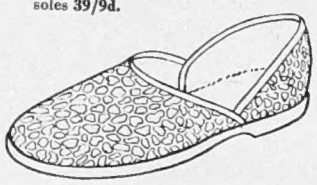

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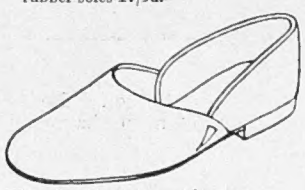

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Volume CCXXXI No. 3009 The SPHERE, London, November 30, 1957

The SPHERE

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CANADA'S TRADE MISSION TO BRITAIN—SOME OF THE MEMBERS ON THE STAIRS AT CANADA HOUSE, IN LONDON : In front, from the left, are Mr. Gordon Churchill, Canadian Minister of Trade and Commerce, who is leading the mission ; Mr. George Drew, High Commissioner in London, and Mr. James S. Duncan, Chairman of the Hydro-Electric Commission of Ontario, and the mission's deputy leader. The picture was taken before the Press conference at the start of their month's tour of Britain.

The main object of the mission is to proceed with the proposal made last summer by Mr. Diefenbaker, the Canadian Prime Minister, that some of Canada's purchases from the United States might be diverted to Britain. Speaking for the other fifty-six members of the mission at the Press conference in Canada House last week, Mr. Gordon Churchill said : "With your active co-operation, a larger share of the Canadian market may be obtained by United Kingdom exporters." Recent improvements in the transatlantic telephone service and speedier air transport facilities put the United Kingdom in a position to offer more rapid delivery and to provide the servicing to which Canadian purchasers were accustomed. "Our mission," Mr. Churchill continued, "represents firms whose purchasing power is in hundreds of millions of dollars, and it includes many executives who are in a position to influence purchasers in the direction of Great Britain if they are convinced that British goods are competitive." The Canadians' tour of various centres in Britain started last Monday with a visit to the U.K. Atomic Energy Research Establishment at Harlow.

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A ROYAL VISIT TO A HERTFORDSHIRE SCHOOL: The Queen is talking with thirteen-year-old Judith Godfrey during a cookery class at Queen Elizabeth's Grammar School for Girls at Barnet. Among those present at the school during Her Majesty's visit were Mr. David Bowes Lyon, Lord-Lieutenant of Hertfordshire; Mr. Geoffrey Lloyd, the Minister of Education; Alderman H. E. Fern, Chairman of the Governors; and Miss F. M. Balaam, the Headmistress. Gifts made in the school were given to the Queen for her two children, Prince Charles and Princess Anne.

THE FIRST BRITISH SEASIDE PIER TO BE BUILT SINCE THE WAR: Prince Philip, Captain-General of the Royal Marines, is seen touring the pier at Deal, in Kent. The Duke are the Mayor of Deal, Councillor S. Stewart-Dunn, and the Piermaster. The pier is of steel and concrete and has cost £250,000. It replaces the former structure measure during the war. In the course of his speech the Duke referred had served in the ship which had gone to the rescue of Captain Harris, whose

A London Newsletter

195-198, STRAND, W.C.2.

A Long Row to Hoe.—I listened with close attention to Mr. Kennan's second Reith lecture. He argued that our efforts to moderate the tension with the Kremlin are on the wrong lines and that, even if re-created, they will take years to achieve success. I think the bones and beak of Mr. Kennan's opinion is summed up in this sentence:—"No solution to any serious problem will be found in any meetings where a group of Western representatives, bound by prior understandings among themselves and limited by each other's inhibitions, confront the Soviet negotiators round a table." That goes for the U.N. Assembly, no less than for top-level meetings. Why is that? Because over a period of forty years, the leaders of the Kremlin have used the weapon of falsehood as a vital part of propaganda for home and outside consumption until the borderline between fact and fiction has been obliterated in their minds. Their intelligence services are admirably efficient in detail. They can count the last button in our defence preparations. But their spies cannot hope to make the Kremlin chiefs comprehend the reasoning that lies behind Western activities. They can count the hairs on our faces but they have lost the power even to guess at what is in our minds. We must not underrate the power and importance of propaganda *à la Russe*, but we must not exaggerate its *military* objective. It is a politico-military weapon; and for the very reason that it is blunted by falsehood now indistinguishable from fact, the row to be hoed will be long. The Kremlin is not insensible to world opinion. It can be moved by it, but only by years of repetition of chapter and verse contradiction of Soviet charges against the West. Each such gross accusation or misrepresentation must be instantly rebutted by the nation against which it is laid, rebutted repeatedly and quickly. To leave such rebuttals to international committees representing the West, to the U.N. or to heads of states, cannot achieve the results of perpetual rebuttals of single misrepresentations individually undertaken. It follows that—*pace* Mr. Kennan—we must begin all over again and may hope for some results ten years hence. A sombre prospect.

"Monty" to Retire.—At the age of seventy, Field-Marshal Lord Montgomery retires from the Army next September and from the post of Deputy at NATO. He will on retirement in 1958 have completed fifty years service in the Army, longer than did Wellington, statistically as long as Roberts. Ireland has been our cradle for war leaders often enough. He has indeed deserved well—as well as any of our great captains—of his country and of the free world. Immeasurably well, if the points he made in an interview last week are, beyond doubt or question:—(1) the main purpose of NATO is achieved—the prevention of war; (2) our military and nuclear strength is a sufficient deterrent against any aggression; (3) the organisation needs now to be tightened up and politically made more united (politics are not "Monty's" cup of tea); (4) the Sputnik Age may well make war even more unlikely than it is to-day. Clearly Russia's most recent proofs and display of superior weapons of war have not disturbed "Monty's" habitual calm and confidence as they have the Americans. NATO's answer is, in his view, a complete deterrent. Militarily, it still needs an overhaul. The foundations are soundly laid and his share of the work is done, he believes. He has never relished the political side, important as it is; and the evening of his life will be spent in privacy, he hopes, and in peace, certainly not in the political arena. He is wise in his private, as he was in his military, planning. He admits that great men are at times "difficult" and should not be sniped at on that account. He promises us a book. It will not follow Alanbrooke's in all respects.

Murder Galore.—In the few months since the Homicide Act became Law, murders have increased alarmingly—probably by 35 per cent. From April to September the police have acknowledged 128. In the corresponding period of 1955 there were eighty-two. From 1950 to 1956 the average for the *whole year* was 132. These figures give one to think. (The authorities totally deny that child or sexual murders have shown any increase.) When the Home Secretary declared that it was too soon to decide whether the "Be kind to the killer" Act was in any way responsible for the increase, he may have been anxious to avoid too hasty judgment. He was applauded by the ardent supporters of the Bill, but those of us who felt and expressed our anxieties are justified in pointing out that murder is not a subject for prolonged experiment. Human life is precious, and murder hurts the victims more heavily and instantly than the injustices of, say, the Rent Act. A life sentence is not pleasant, but every year conditions in prisons are made more humane and even colourful and, if the experiment of the Homicide Act is to be prolonged and exhaustive, it may be thought undesirable that convicted murderers should, *pro tem.*, share in those prison easements for long-term prisoners. If they are to know that they will not be hanged, they should, *during the experimental period*, be assured that the rigidity of a life sentence will remain for them as grim as it was in the past.

A Measure of Democratisation.—I feel no doubt that, given time for consideration, the new reign would initiate many adjustments in outworn Court protocol to meet the demands of democracy. It so happens that

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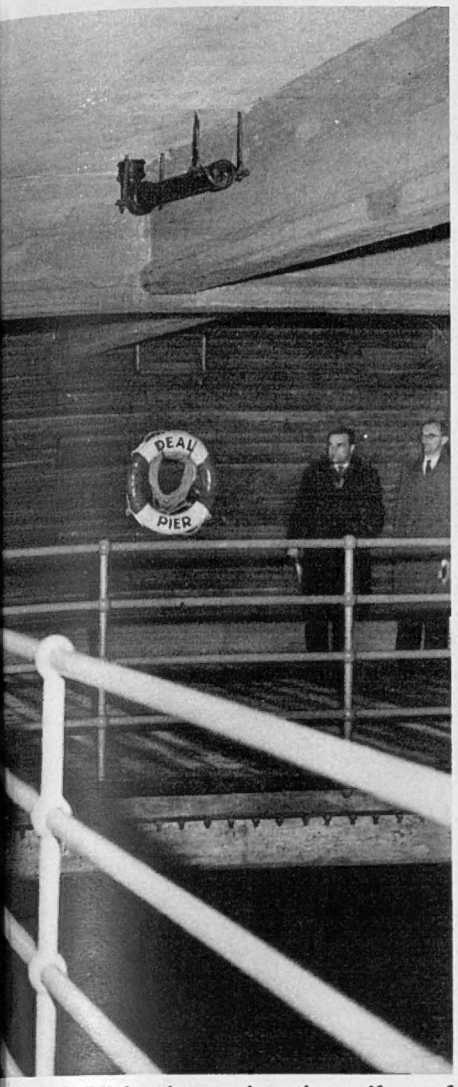
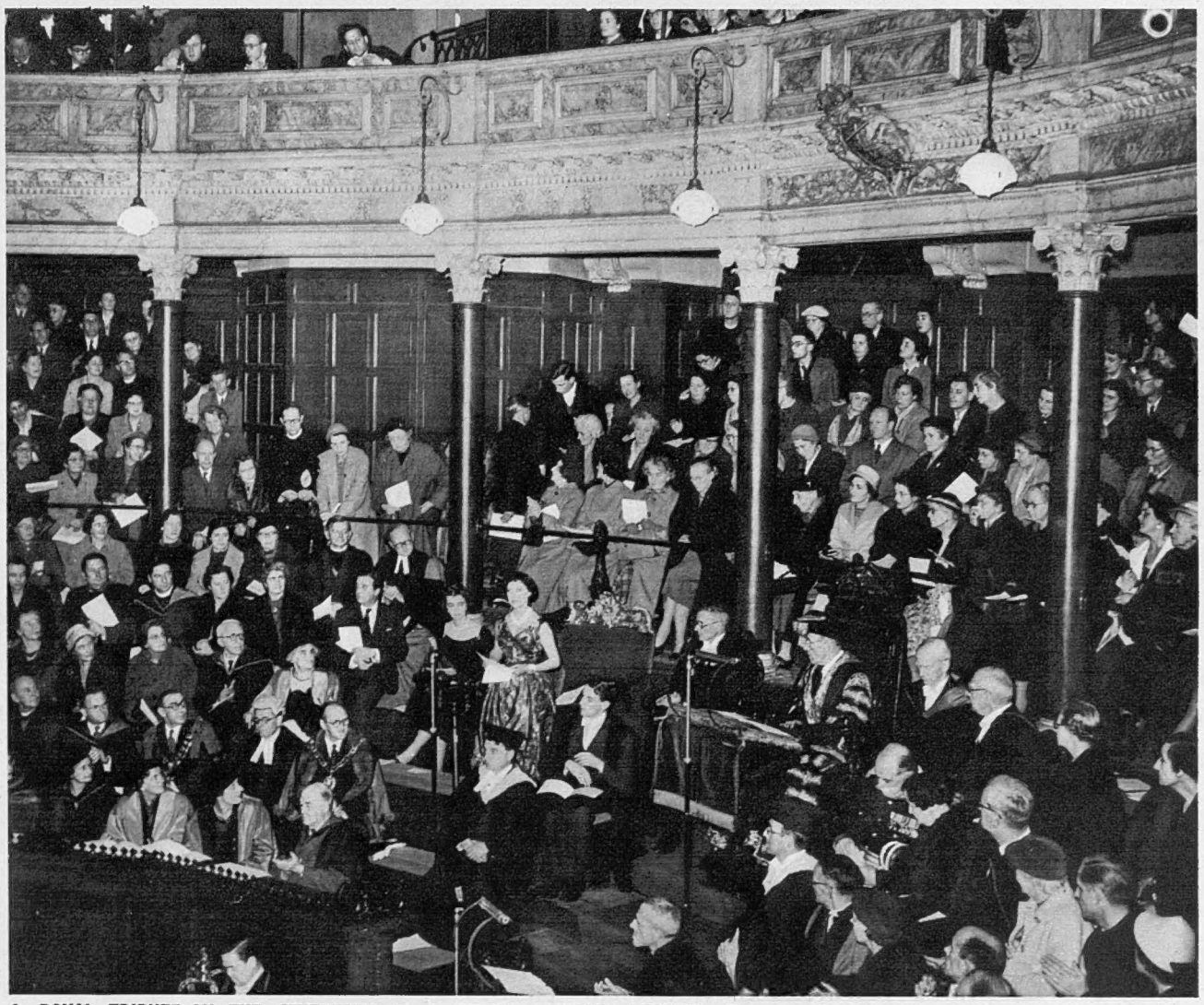


Duke of Edinburgh, wearing the uniform of after performing the opening ceremony. With Captain A. V. Harris. The new 300-yard-long which had been destroyed as an anti-invasion to an incident during the war when he own ship had been hit by an acoustic mine.



A ROYAL TRIBUTE ON THE CENTENARY OF A CENTRAL AFRICAN MISSION: Princess Margaret is speaking in the Sheldonian Theatre, at Oxford, as part of the centenary celebrations of the Universities' Mission to Central Africa. The mission was founded in 1857 as the result of speeches made by Dr. David Livingstone at Oxford and also at Cambridge. In Central Africa to-day there are five dioceses supported by U.M.C.A. In this picture Lord Halifax, Chancellor of the University, is seen to the right of the Princess. Her Royal Highness described how during her tour in East Africa last year she had stood on the site of the former slave market in Zanzibar which is now occupied by the Cathedral.

the decision to end the presentation parties answers one of the first criticisms levelled at Court protocol in that recent sorry wave of ill-mannered attacks. Quite certainly, those who joined in the attack will justify and take credit to themselves as, one by one, they tick off items in their catalogues of criticism given effect to. The feather they stick in their caps will be picked from the dung-heap. A little faith in the ability and willingness of our Royal house, proved since the Victorian age, to adjust itself to changing conditions might have spared their foetid breath. The nation as a whole is not sympathetic to those who decry our Monarchy or our soldiers or any other institutions debarred from answering criticisms. Those old enough to remember Court protocol and ceremonial at the beginning of this century, and to compare it with to-day, will agree that recent sovereigns have needed no rude prods to move with changing times. Most of us hope that these difficult adjustments will conserve the Monarchy as an institution dedicated and yet apart, one with us and yet distinct from us, needing no buffer state dividing throne and people, free to earn our respect but not to endure a misapplied worship or an insane and intrusive curiosity; accorded the rights of all citizens in directing its private life, but for ever distinct from its subjects in the special nature of its duties and functions. There are many items of traditional protocol which the Sovereign would long ago have abandoned as a matter of personal choice. Even Queen Victoria dreaded her "drawing-rooms," which made her seasick. The criterion of adjustment for sovereigns is never personal choice. It is a constitutional matter.

Two Museums.—Lord Crawford, Chairman, National Trust, put his heart into saying his piece at last week's National Trust annual meeting. The rapid destruction of what remains of English scenery and amenity is easier described than prevented. All the societies for preservation and inculcation of taste and many Acts of Parliament are powerless to arrest the present rate of destruction. The demands of science, the untutored zeal of local councils, the go-as-you-please of private builders, the pressure of departmental chiefs for the swift implementation of their own projects, forever win the days against the protection societies whose functions overlap or contradict one another. This small island, once famous for its natural and artistic beauties, is rapidly being turned into two museums, a modern science museum and a museum of antiquities, and the first is the larger and the uglier and stands cheek by jowl with the second and overshadows it. The atomic power stations rise on famous beauty spots or blot out historic buildings, electric cables criss-cross lovely valleys and hillsides, new towns and village additions have abandoned all attempts to harmonise with their settings and insult the passer-by with their planned monotony and suburbanism. Add hideous lamp-posts in beautiful towns, glaring advertisements and litter dumps, and we can get an idea of the crimes with which, if sanity ever returns, posterity will charge us. In most previous centuries, the living generations accepted it as a trust that they must create new beauty and preserve the old. To-day the overriding preoccupation of government, local government and all the planners is to build in the shortest possible time a new Jerusalem nearer to the heart's desire of science, that can stand comparison with the "laboratory work" of our rivals. A powerless minority, whose voices sound as whispers, can only warn and protest that our age is misappropriating posterity's trust funds and that a full life is not comprised in scientific gadgets, even those designed for peace.

Telephone Charges.—The Postmaster-General deserved to have his joke with the House and the Opposition before he announced his tremendous telephone concessions. In their "generosity" they must be unique. They are certainly staggering to a nation resigned to perpetual increases in the costs of goods and services, and quite heartened to find that temporarily a bit of cheese can be bought rather cheaply. Here there is a large-scale example of what the effect of automation and readjustment can be expected to achieve in reducing the overhead of a national service and of the confidence felt by a Department in those effects which justify an immediate slashing of costs to users while automation proceeds. The Post-master-General, it is true, has given with one hand and taken away with the other. The added cost of postage must in many cases fall heavier on the public than the reduction in telephone rates will relieve it. But it cannot be beyond the power of the G.P.O., and at no distant date, to find means of automation and reorganisation for the postal services which could make the present exorbitant charges unnecessary. International investigations to that end are already taking place. If we are ready to accept an individual code number in lieu of our titles, names and addresses, standardised envelope sizes and perhaps scientifically doctored stamps, we can get back to penny postage quite soon. I accept in advance, but redirection of letters may cause a problem. We shall be required to learn by heart several codes. Meanwhile, what a fillip to "natter" and gossip we who dislike the telephone, except for emergency (and erect it in an ice-house for choice), can expect to result from the new telephone charges. The bazaar rumours will travel from Cornwall to Caithness and along the network faster than sound and will never be stilled.

Muddlecombe is Muddled Again.—The lay magistrates and, indeed, chairmen of quarter sessions may well be puzzled by directives sent down from the High Court. Not seldom they are made to look foolish when they follow such directives. "Driving under the influence," for example. Time and again magistrates have been instructed to treat this offence as one of the utmost gravity and advised that persons so convicted are best punished by being kept off the roads for long terms by suspension. Moreover the Law specifies that in imposing suspensions the fact that suspension may seriously affect the defendant's means of livelihood must not justify remission of that penalty. In any case, a suspended defendant can, after a period, apply to the court for review. In such a case recently, admitted by sessions and confirmed by the Court of Appeal to be a shocking bad case of its kind—a "fighting drunk" driver—the Court of Appeal reduced the suspension period from ten years to one year, while confirming the heavy fine. It did so on the ground that the court should "balance the danger to the public with the *convenience* to the public," as the appellant was a doctor with a panel practice and might be called out at night. Small wonder if lay magistrates sometimes wonder if it is worth while to pay close attention to leading cases and directives from on high, which seem to cancel each other out at short intervals.

Cruelty to Animals.—Pictures in the Press of the dog victim of satellite experiment wrung the hearts of a majority who saw them. The human heart is much more easily and heavily wrung by observance of an accident to one human or animal than by news of a holocaust of human lives in some distant disaster. It is sad that the most *active* members of societies for preventing cruelty are so often cranks. "A one-minute silence" in memory of the satellite dog is an instance of crankiness. Hypocrisy and lack of realism are charges which may be brought against very many declared animal-lovers and humanitarians. I wonder how many whose hearts were wrung by pictures of Laika realise that probably not a minute passes every day when some animal is not in deadly pain or fear as a result of the needs, the whims, the sports or the lack of imagination of men. For generations uninspected shambles, vivisection, sport, ill-temper, thoughtlessness, commercial greed, not to speak of Nature's orgy of cruelty among the species of fauna, have made this no exaggerated estimate. Most of us are hypocrites. We strain at the gnat and swallow the camel and our digestion does not suffer. Most of us have found that "it 's a cruel world." Some of us try to make it less so, while justifying the cruelty which our own particular fancies in food or sports cause. THE OLD STAGER

HALF-SUBMERGED AT HER MOORINGS : Three hours after her boilers blew up, the Italian freighter *Anna Maria Ievoli* keeled over on to her side. The explosion shook Naples Harbour, and three harbour workers were killed, including a Customs officer.

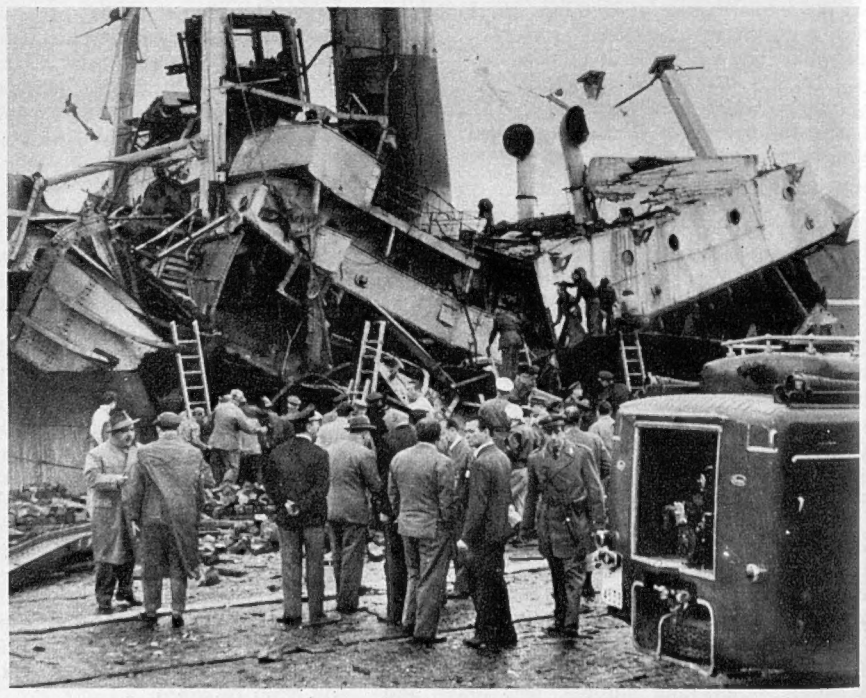
AN ITALIAN SHIP EXPLODES

Eight are Feared Dead in the Naples Accident

While the Italian cargo-ship *Anna Maria Ievoli* was refuelling in Naples Harbour last week there was a sudden explosion and the boilers blew up, ripping a large hole in her side. The blast shook the waterfront and killed a Customs officer and two dock workers. About sixty people were injured, many by a steel plate which hurtled through the air and landed in a busy city square. The ship capsized on to her side at its moorings and divers began an investigation of the half-submerged wreck in the hope of finding the bodies of five missing members of the crew who are believed to have gone down with her. The ship's engineer and leading stoker have been questioned by the authorities. It is thought that a faulty boiler valve was responsible for the accident.

A DIVER SEARCHES THE WRECKAGE : Five members of the crew were missing after the explosion and it was feared that they went down with the ship. Divers were sent to look for their bodies. *Below*—A view of the bridge of the *Anna Maria Ievoli*.

ANOTHER VIEW OF THE CRIPPLED SHIP : Crowds line the waterfront to see the ship sink on to her side. About sixty people were injured in the explosion and a third of them detained in hospital. It is believed that a faulty valve was the cause.



EXTREMES OF WEATHER

Bush Fires in Australia; Snow and Wind in America

On left—

A VALLEY ABLAZE IN AUSTRALIA: Dense clouds of smoke billow from bush fires near Wentworth Falls, in the Blue Mountains of New South Wales. A strong wind whipping the flames added to the difficulties of the fire-fighters. This was only one of the many areas of the mountains in which bush fires last week roared up from the valleys and threatened to overwhelm the townships. Firemen, police, Servicemen and volunteers, including women and children, turned out in hundreds to battle to save homes and dwellings and to evacuate inhabitants. Railway and road communications were disrupted. The fires followed a long period of drought which had caused the failure in this year's crops of wheat in New South Wales, normally Australia's biggest wheat-producing State.

SNOWFALL IN MICHIGAN: The streets of Houghton, Michigan, are piled high with snow after one of the worst autumn blizzards in living memory. Transport and communications were interrupted, so the authorities closed all business and put every available man to snow-clearing, from the bank president to prisoners from the county jail.

FIRE-FIGHTERS IN ACTION: Heat from a blazing garage at Faulcon Bridge, New South Wales, keeps firemen at a distance as they fight the flames. Bush fires here were the worst for six years.

VIOLENT WINDS DO GREAT DAMAGE IN CALIFORNIA: *On left*—Overturned and up-ended light planes at the San Fernando Airport, near Los Angeles, were the result of 85-m.p.h. raging winds which struck Southern California. Damage was widespread, causing power failures and interruption in transport and communications. *On right*—This oil derrick was blown across the Pacific coast Highway at Huntington Beach, between Los Angeles and San Diego. It was one of five derricks toppled over by the gales.

MISSILE RESEARCH

A Laboratory For Jet Propulsion Study

The great anxiety among the American people over the advanced state of Russian rocket development has brought the work of the Jet Propulsion Laboratory at Pasadena, California, into the public eye. The 80-acre installation has a 12-in. supersonic wind tunnel operating to a speed of Mach No. 4 and a 20-in. tunnel up to Mach No. 5 speeds. A third tunnel for hypersonic testing is soon to be completed. This will have a speed range of Mach No. 5 to Mach No. 9. Allied with these are research laboratories and controlled tests can be made with the full use of research data. The JPL, as it is generally known, also maintains processing units and test cells for testing propellents and there is a great deal of highly complicated equipment to record information and make evaluations from it.

The Laboratory also operates a number of external facilities. These include a field-test station which is used for the static firing of complete liquid propulsion systems and large-scale rocket engines, at the Edwards Air Force Base, Muroc, California, and the White Sands Proving Grounds at Las Cruces, in New Mexico, for full flight missile tests.

AN AERIAL VIEW OF THE JET PROPULSION LABORATORY: At Pasaden: California, the JPL is engaged on the vital work of studying high-spee missiles. Its facilities include wind tunnels operating at superson speeds, and a hypersonic tunnel soon to be completed. JPL operat the field testing station at Muroc, California, for the static firing of rock engines, and the White Sands Proving Ground at Las Cruces, New Mexic

ELECTRONIC APPARATUS FOR TRACKING ROCKETS THROUGH THE SKY: Tracking antennæ, contraves, theodolites and cameras developed by JPL Electronics will play a part in ground-to-satellite communication.

A SOUND SUPPRESSOR FOR A ROCKET ENGINE: Small-scale static engine tests such as this one are performed at Pasadena, but more elaborate full-scale work is carried out at the field-test station at Muroc.

A "CORPORAL" IS MADE READY FOR LAUNCHING: The "Corporal" and its erector-launcher were developed by the JPL in order to solve guided missile problems. Its policy is to originate complete systems involving the missile, instrumentation and handling equipment.

THE NEWS IN PICTURES

LEADING SOCIALISTS WIN LIBEL ACTION: Mr. Bevan leaves the Law Courts in London with Mr. R. H. S. Crossman, M.P. (left), and Mr. Morgan Phillips, Secretary of the Labour Party, during the hearing of the libel action which they brought against the *Spectator* last week. The action arose from an article published in the paper last March regarding an Italian Socialist convention in Venice at which the plaintiffs were present. It spoke of their capacity "to fill themselves like tanks with whisky and coffee"; "the Italians," it said, "were never sure whether they were sober." The jury found the words defamatory of the plaintiffs, awarding each of them £2,500 damages. The main issue throughout the case was whether the defendants had made or offered an apology sufficient to mitigate the damages.

On left—

MR. MACMILLAN SETS OUT FOR PARIS: The Prime Minister leaves No. 10, Downing Street, for his talks with the French Government last Monday. He was accompanied on what was expected to be a brief visit by Mr. Selwyn Lloyd, the Foreign Secretary, and Mr. Reginald Maudling, the Paymaster-General, who is the Minister responsible for negotiations concerned with British participation in the proposed European Free Trade area. The conversations in which Mr. Macmillan and M. Gaillard, the French Premier, were the chief participants were understood to deal with the restoration of Anglo-French harmony disturbed by the Anglo-American supply of arms to Tunisia and with the forthcoming conference of NATO powers in Paris.

HOUSES WRECKED IN AN EXPLOSION IN LANCASHIRE: Search is made among the wreckage of two houses in Liverpool Street, in Salford, after they had been wrecked by an explosion last week-end. A girl, aged nineteen, Mavis Kay, was killed and three people were injured. It was reported that the explosion was caused by coal-gas.

THE END OF A BLOOD FEUD IN A VILLAGE ON THE ISRAEL-JORDAN BORDER: Arabs and Jews sit together at a feast at Kafr Kassem, held to end the blood feud which arose from the killing of forty-nine Arab villagers by Israel border police on October 29, 1956. The feast is the traditional Arab form of symbolising the wish for peace. Representatives of the families of many of the victims were present with members of the Israeli Government, Army and police. Israel is giving the equivalent of a sum of £1,000 to each family which lost a relative and compensating those who were wounded. Border police allegedly responsible for the shooting are still on trial.

TWO NEW WAR MEMORIALS: *Left*—The memorial at Medjez-el-Bab, in Tunisia, which was unveiled by General Sir Kenneth Anderson, commemorates 1,959 officers and men of the armies of the Commonwealth who fell during the operations in North-West Africa between November 1942 and May 1943 and have no known grave. It stands in Medjez-el-Bab war cemetery in which 2,900 of their comrades are commemorated by individual headstones, and is situated about forty miles to the south-west of Tunis. Owing to bad weather, the unveiling ceremony was delayed. *Right*—Memorial books which have been placed in a shrine in New Delhi commemorate 25,000 men of the Commonwealth armed forces who died in India. The shrine was inaugurated by the President of India, and the ceremony was attended by Sir Patrick Spens. The headstones in front of the pillared memorial mark the graves of British war dead. Both memorials have been erected by the Imperial War Graves Commission.

THE NEWS IN PICTURES

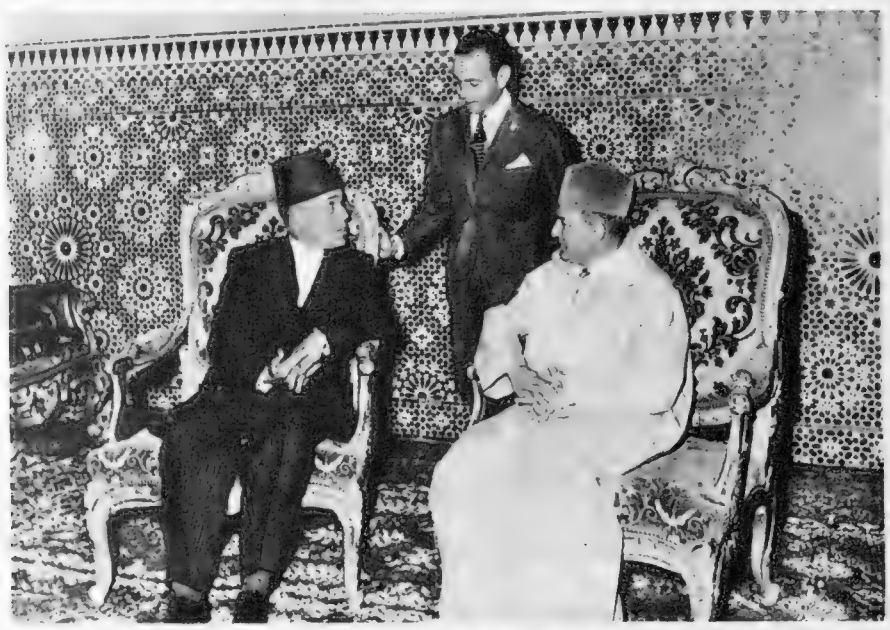
A PRINCESS MAKES HER FIRST IMPORTANT PUBLIC APPEARANCE: Wearing the traditional folk costume of Monaco, the ten-months-old Princess Caroline waves to crowds from the castle balcony. Her mother, Princess Grace, holds her, and on the right is her father, Prince Rainier. The occasion was the Monaco National Feast Day, and the appearance of the little Princess was one of the highlights of the festivities.

RECOMMISSIONING A BATTLE-CLASS SHIP: The Chief of the Imperial General Staff, Field-Marshal Sir Gerald Templer, reads the lesson during the commissioning service at Portsmouth of H.M.S. *Barrosa*, of the Fourth Destroyer Squadron. All four ships of the Squadron have now been recommissioned. The others are *Alamein*, *Corunna* and *Agincourt*. The C.I.G.S. is a Colonel of the Royal Irish Fusiliers and his presence at the commissioning service linked the regiment's past in the Battle of Barrosa with the ship bearing its name.

On right—

PRESIDENT HEUSS VISITS THE SCENE OF A NAZI MASSACRE: During his visit to Italy the West German President (centre) accompanies Signor Giuseppe Bosco (right), Defence Under-Secretary, and Lieut.-General Giovanni Cassino (left), Commander of Rome military district, to a cave where on March 24, 1944, 335 Italian civilians were killed. They were murdered as a reprisal after a bomb had killed thirty-two German soldiers. Now a memorial stands in front of the cave where the victims are buried. It has been made a national shrine.

A 32,500,000-DOLLAR LOAN TO AN INDIAN INDUSTRIAL COMPANY: The agreement is signed in New York for a loan of 32,500,000 dollars (over £11,500,000) by the World Bank and North American banks to the Tata Iron and Steel Company of India. From left are Mr. H. Dayal, Indian Chargé d'Affaires in Washington; Mr. G. D. Woods, Chairman, First Boston Corporation; Mr. Eugene R. Black, President of the World Bank, and Mr. Edwin T. Warren, a representative of Tata.



TUNISIAN–MOROCCAN TALKS IN RABAT: President Bourguiba, of Tunisia, and King Mohammed of Morocco sit in the Royal Palace with the Crown Prince Moulay Hassan of Morocco standing between them. The purpose of the talks was to decide on common policy at the United Nations towards Algeria. Last Sunday King Mohammed flew to Washington for discussions with the American Government and a tour of the U.S.A.

MOVES TOWARDS EGYPTIAN–SYRIAN FEDERATION: Anwar Sadat, leader of the Egyptian Parliamentary delegation, speaks to the Syrian Parliament in Damascus. On the rostrum behind, Akram Horami, the President of the Chamber, is seated in the centre. The Egyptian members of Parliament were in the Syrian capital to confer on proposals for the Federal Union of their country with Syria.

THE NEWS IN PICTURES

GENERAL FRANCO RECEIVES A MEMBER OF THE EGYPTIAN CABINET: The Caudillo greets Dr. Mahmoud Fawzi, the Foreign Minister of Egypt, in the El Pardo Palace, in Madrid. In the background is Dr. Fernando Maria Castiella, the Spanish Foreign Minister. Dr. Mahmoud Fawzi had arrived in the Spanish capital on an official visit. When General Franco reorganised his Cabinet last spring it was stated that in foreign policy emphasis would be given to strengthening ties with Arab countries.

THE FUNERAL OF PRESIDENT ZAPOTOCKY OF CZECHO-SLOVAKIA: A dense crowd brings up the rear of the procession as it crosses one of the bridges in the centre of Prague. Antonin Zapotocky, who was aged seventy-two, was the son of a tailor's assistant and began his working life as a stonemason's apprentice at the age of fourteen. Soon he turned to literature—he published poems and novels—and to politics, suffering imprisonment for his views. An early member of the Czech Communist Party, he came to prominence ten years ago, being appointed Prime Minister in 1948 and succeeding President Gottwald in the highest office in 1953. Mr. Antonin Novotny, First Secretary of the Czech Communists, has been voted the new President.

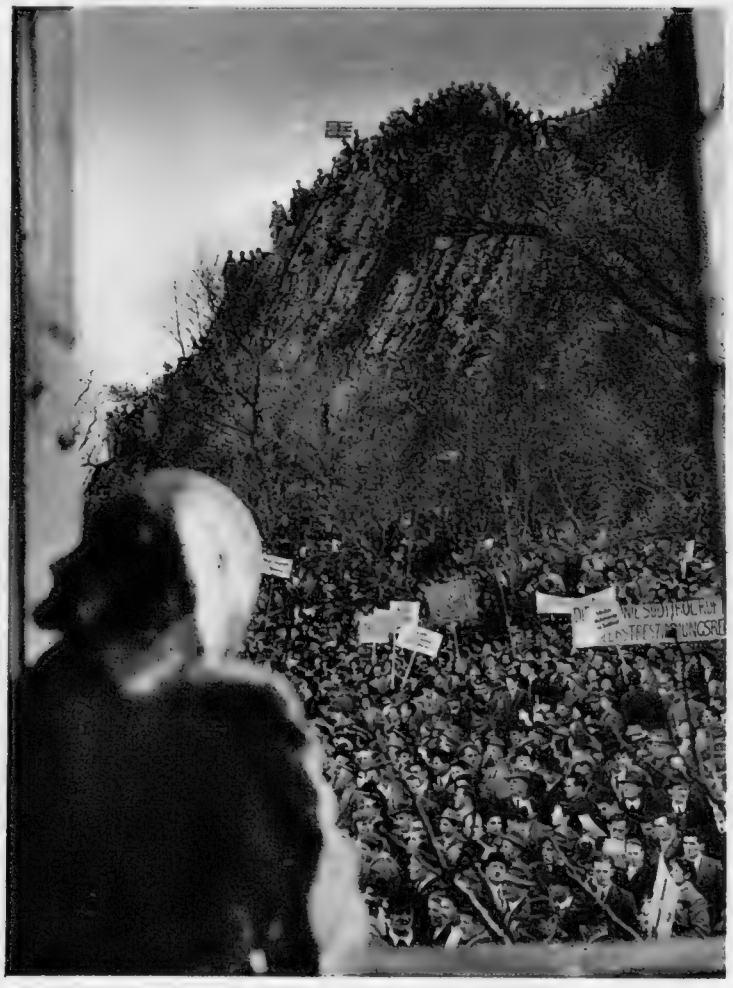
DEMOLITION IN CAIRO: A gang of labourers prepares to pull at the ropes which have been attached to the base of a seven-storey block of flats. The building was the annexe to another block of dwellings which collapsed a few weeks ago, twenty-seven of the inhabitants being killed. The occupants of the annexe were immediately evacuated and orders were given for both blocks to be pulled down. The landlord is reported to be on trial, facing charges of using faulty materials in the construction of his property.

On left—

DOWN IT COMES: As result of a single heave at the ropes the entire structure of the condemned block of flats crashes down to the ground in the Egyptian capital.

On right—

A DEMONSTRATION FOR AUTONOMY FOR THE SOUTH TYROL: The woman in the left foreground is looking down from the castle of San Firmiano (Sigmundskron to German-speakers), near Bolzano, in the Alto Adige, in north Italy. Below her and on the top of the rock beyond are some of the large concourse of demonstrators who gathered there recently to demand autonomy for the South Tyrol. In this region the majority of the population is German-speaking. Until 1919 the area was part of Austria.

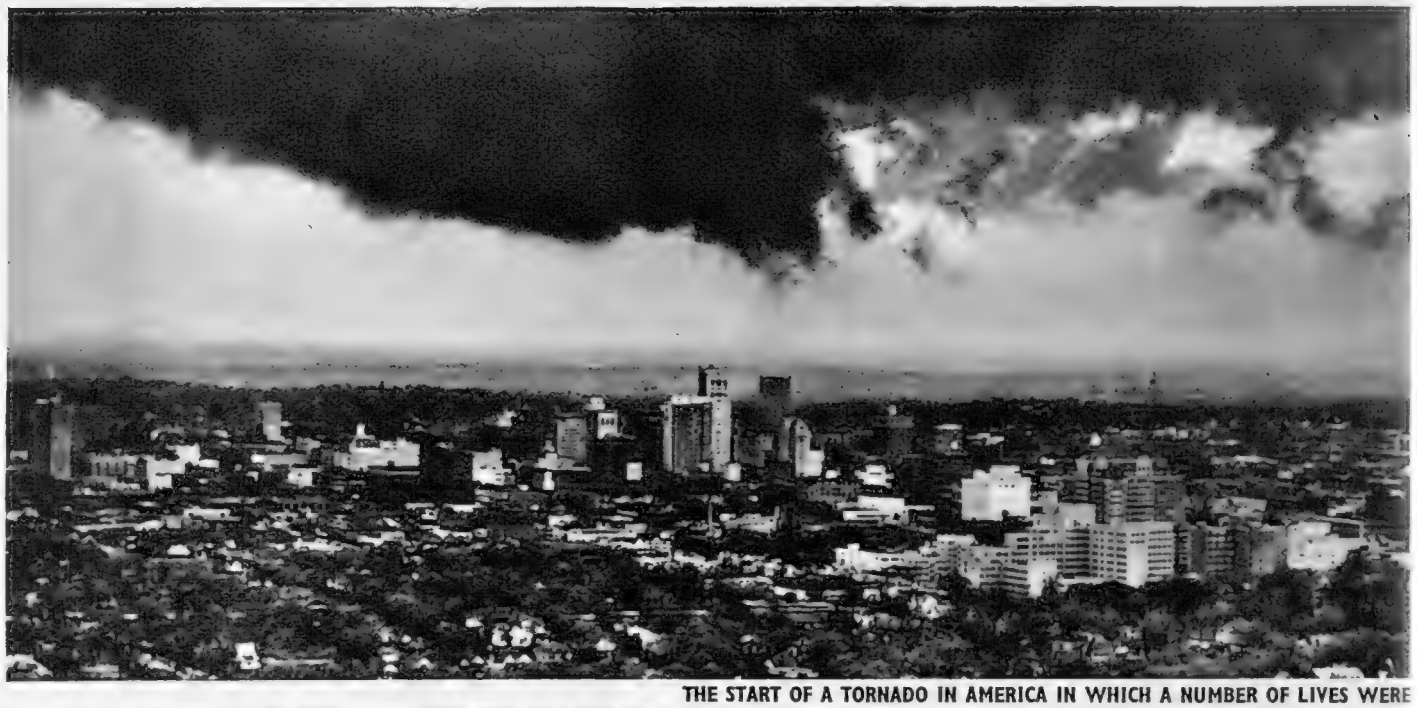


THE EMBLEM OF FREEDOM: A leading member of the South Tyrolean People's Party addresses the demonstration at Castel Firmiano from a rostrum adorned with the red eagle of the Tyrol.

THE NEWS IN PICTURES

MR. ADLAI STEVENSON IN WASHINGTON: Mr. John Foster Dulles (left) and the Democrat leader are in good humour during a meeting at the State Department. Mr. Stevenson visited Washington at the invitation of the Administration with a view to joining forces in a re-shaping of America's alliances. After his meeting with Mr. Dulles he said that the exchanges had been cordial and friendly and that the experiment of bi-partisanship was very encouraging. Only a handful of Republican Senators are objecting to the implications of the Government's invitation. They find it hard to reconcile Mr. Stevenson's new role with the criticism made by the Democratic Advisory Council, of which he is a member, that the Eisenhower Administration has no policy during the present crisis. Mr. Stevenson may attend next month's North Atlantic council meeting.

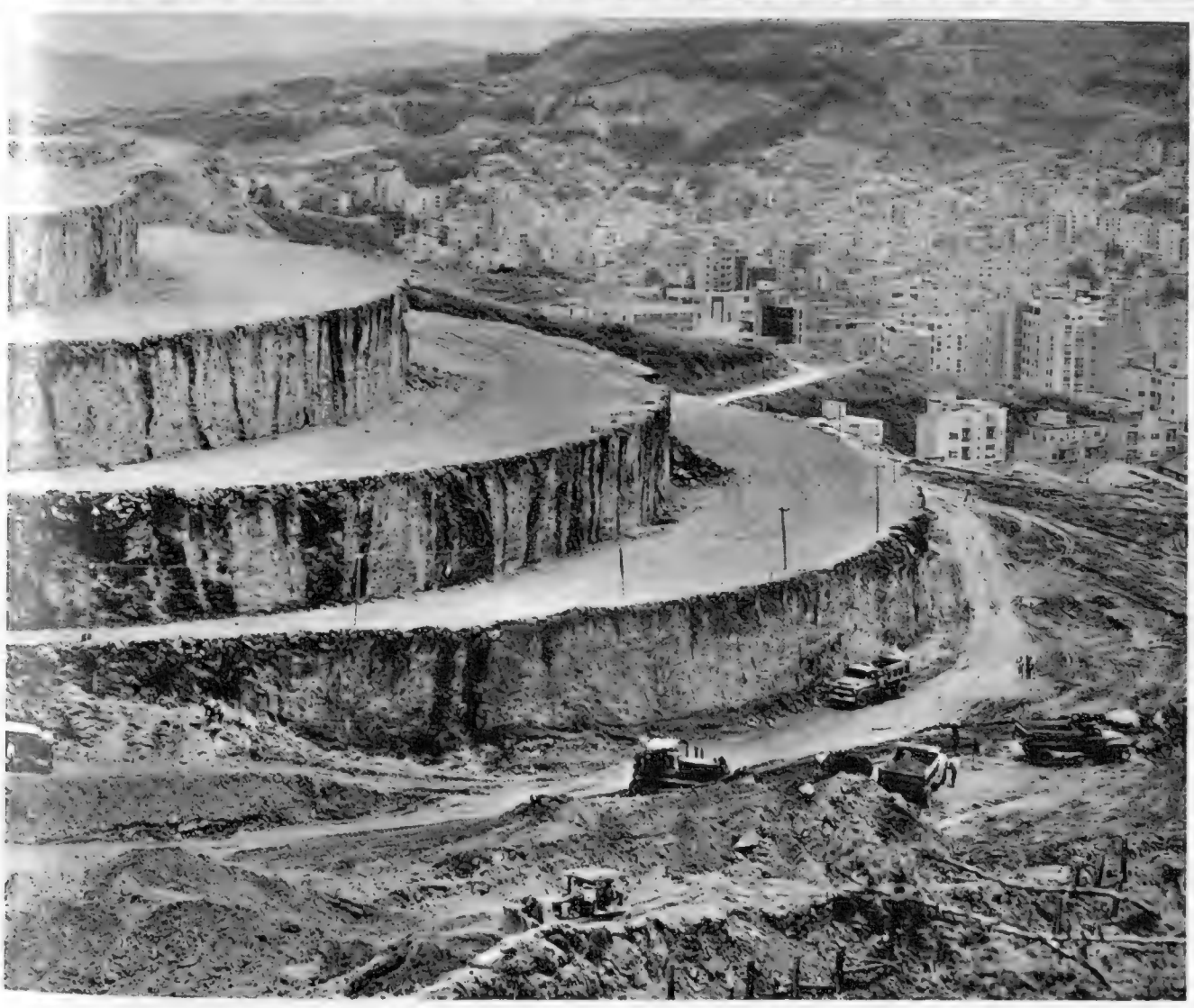
PRESIDENT GARCIA IS RE-ELECTED: A victory salute is given by the President of the Philippines, his wife and daughter, on his re-election in Manila for a second term of office. Mr. Carlos P. Garcia moved up from the Vice-Presidency in March of this year when President Ramón Magsaysay was killed in a plane crash. The contest was a five-man one, but the President, who was the nominee of the Nationalist Party, had a lead of more than 500,000 votes over his nearest rival, Mr. José Yulo of the Liberal Party. Observers interpret the result as an endorsement of the alliance with the U.S.



THE START OF A TORNADO IN AMERICA IN WHICH A NUMBER OF LIVES WERE LOST: The picture reproduced above, taken from the top of a mountain looking north over the big industrial city of Birmingham, in Alabama, U.S.A., shows a part of the huge black storm-cloud which suddenly appeared in the sky and spread slowly over the city before breaking into a tornado, which swept through the streets leaving in its wake a trail of desolation. A number of people lost their lives and many hundreds were injured. The area of the steel-producing city which was most heavily damaged by the tornado is in the upper right of the picture.

SEVENTEEN MINERS KILLED IN AN EXPLOSION IN SCOTLAND: Anxious crowds wait at the pithead of the Kames Colliery, Muirkirk, Ayrshire, for news of miners trapped underground by an explosion. The accident happened in a 6-ft. seam section towards the end of the mid-evening shift. Two men were instantly killed and fifteen others were trapped behind a fall of rock. Eleven men who were working nearby were injured. Rescue teams, many of them miners, equipped with breathing apparatus, worked in relays to bring the wounded and the dead to the surface. This is the first major disaster in a British pit for over six years, and the first to occur in Scotland since 1950.

THE OLDEST AMERICAN SENATOR VISITS THE MINISTRY OF DEFENCE IN LONDON: Mr. Duncan Sandys, the Defence Minister, talks to Senator Theodore Francis Green, who at ninety is the oldest man to have served in the United States Senate. A Democrat, Senator Green wishes to remain in Congress for two more terms, by which time he will be a hundred. Among his first engagements during his visit was a luncheon with the U.S. Ambassador, the Hon. John Hay Whitney, with Sir Winston Churchill.

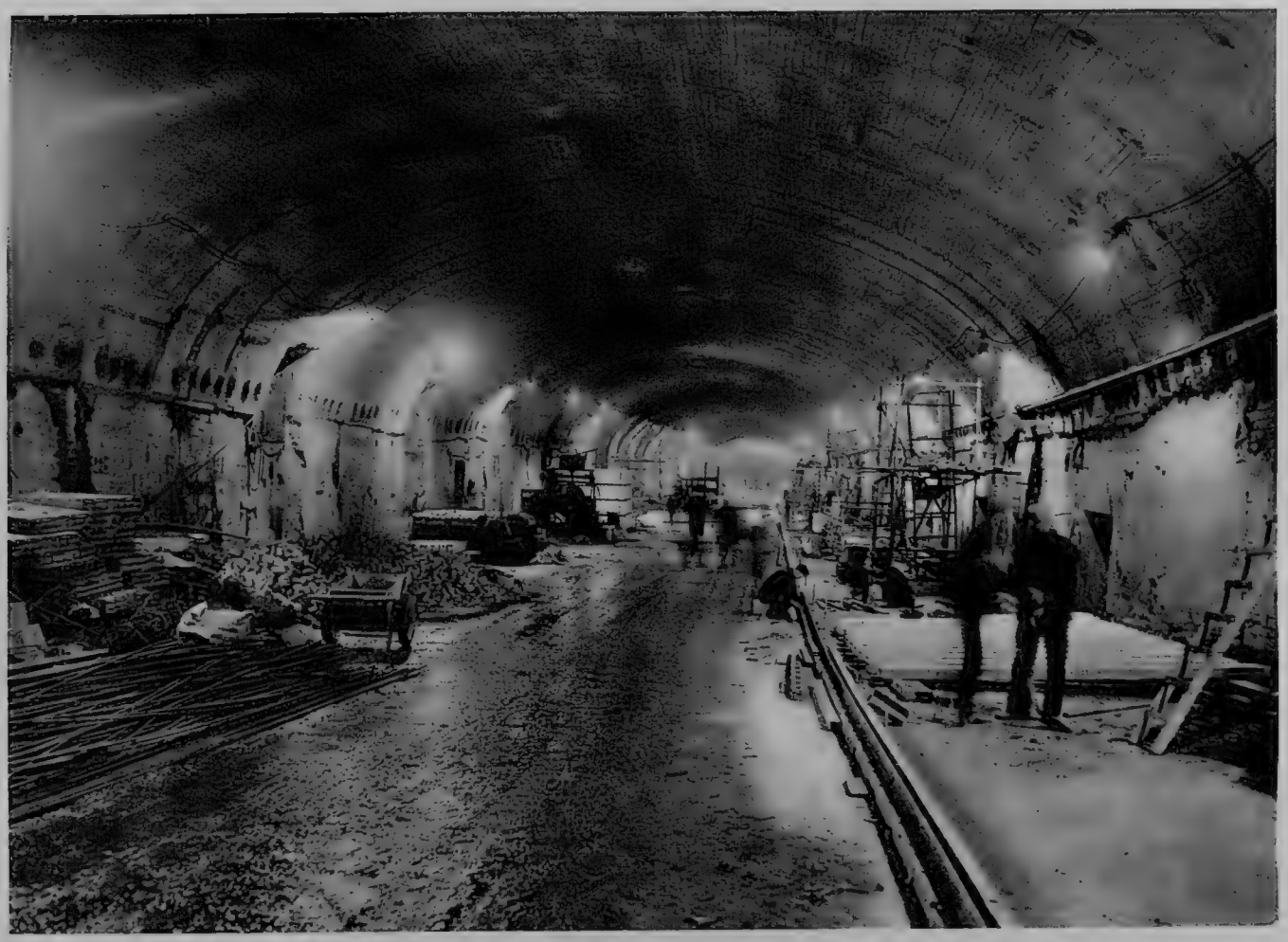


A BUSINESS SPIRAL: The foundations of the new business centre at Caracas, Venezuela, present a strange shape. On its base, carved out of a mountain-side, the building is to rise to a height of 365 ft. Its most notable feature will be the spiral ramp which will enable buyers to drive right up to the sales rooms and offices. *On left*—A closer view of the site shows the proximity of the city of Caracas in the background. The "Helicoide," as it is called, is due to be finished in 1960.

A Spiral Pyramid

The Foundations of a New Shape in Buildings

At Caracas, in Venezuela, a remarkable £9,000,000 building project is beginning to take shape. Twenty-five acres of mountainside have been carved out to form the foundations of a new business centre called the "Helicoide." Taking the form of a spiral, it will rise to a height of 365 ft. and will be crowned by an aluminium dome 170 ft. in diameter. When completed the dazzling white structure will incorporate a permanent exhibition hall and television station. As it is contoured on the side of a hill, there will be ten storeys on one side and twenty-five on the other. The most extraordinary feature of the building is its barely noticeable ramp with an incline of 1 in 40. The architect and originator of the "Helicoide," which is due to be finished in 1960, is Dr. Jorge Romero Gutierrez.



A NEW ROAD TUNNEL IN BRUSSELS: The tunnel under the Porte Louise is part of the ambitious road scheme for Brussels. Now in its final stages of construction, it is expected to be fully open for traffic next month. It is over 700 yards long and runs under one of the most congested quarters of the city, emerging in front of the Palais de Justice.

On right—

CARS USE A NEW "FLY-UNDER": This underpass is in the centre of the Rue de la Roi. The most important aspect of the £14,000,000 road system is the five-mile ring road around the city centre. At various points the road either goes beneath or is raised above previously existing main roads.

A FAMOUS BOTTLENECK IS REMOVED: The "fly-under" at the awkward crossing at Porte Louise is part of the completed Brussels ring road. Fast-moving through traffic can now use the four-lane underpass and the frequent hold-ups of former years have been eliminated. The road scheme is two-fold, it caters for the 1958 Exhibition and at the same time ends the city's congestion.

BRUSSELS ROAD PROGRESS

An Exhibition City Needs a Modern Road System

Paris has its Eiffel Tower, London Wembley Stadium and Festi Hall. It seems that the architectu legacy Brussels will enjoy from Universal and International Exhibit next year will be the finest city r system in Europe. The Belgian Gove ment has spent £14,000,000 in creat a network of tunnels, overpasses a raised carriageways to ease congesti and at the same time be capable handling the expected large volume motoring visitors.

The most important aspect of t plan is the construction of a ring ro around the inner part of the city. follows the line of the old fortificatio which disappeared a century ago, and some five miles in length. At four ma crossing points the road goes und ground and at other points it is raise At the crossing with the Avenue Lou which brings traffic from Namur an Charleroi into the capital, the tunnel in two sections. A lower tunnel is to g from the Avenue Louise under the ri road tunnel and emerge near the Pala de Justice. This excellent road syste will give Brussels an appeal for t motor tourist in future years, long aft the 1958 Exhibition.

RAISED CARRIAGEWAY RELIEVES A BUSY CROSSING : At the Place Sainctelette the inner ring road is raised by single pillars and sails above the busy streets below. The Brussels tramway system is the main form of public transport, and at this point the trams run on their own double tracks on each side of the road viaduct. The road programme for the city is a two-year one designed to be completed in time for the opening of the Universal and International Exhibition in Brussels next year.

ANOTHER "FLY-UNDER" AT A BUSY CROSSING IN BRUSSELS : In the centre of the Rue de la Roi is this road tunnel which is designed to avoid the busy crossing above on which can be seen cars and trams using the intersection. *On right*—At the Place Sainctelette the ring road is carried above the normal street-level on these single pillar supports. The trams have utilised the space immediately beneath, running on a special track where their interference to normal traffic can be kept to a minimum.

PROTECTION FOR THE NATIONAL ASSEMBLY IN PARIS : A cordon of police stretches across the approach to the Palais Bourbon, where deputies were meeting for the debate which gave M. Gaillard, the Premier, a vote of confidence. It was feared that demonstrators might try to break into the building. The one-day strike of French Government and municipal employees last week was another in the series of 24-hour stoppages of work called by the unions in demand for increases in wages.

France is becoming used to one-day strikes of public employees which are called to draw attention to the demand of officials and workers for higher pay. The latest to occur was last week. Public transport systems, gas and electricity were not affected. However, throughout the country postal services were very irregular, air services drastically curtailed and dustbins unemptied. In Paris a huge procession marched through some of the main streets and demonstrated outside the Ministry of Finance. For certain classes of the community the strike may have been a boon. Children could not go to school—their teachers having joined in the stoppage. Prisoners could not be taken from gaol to court for trial. And those arriving in France found that customs officers were not searching baggage.

TWENTY-FOUR HOUR STRIKE IN FRANCE

Public Employees Stop Work for One Day

STRIKERS BREAK THROUGH THE POLICE: A crowd pushes past the police in the Rue de Rivoli. However, the demonstrators turned back at the cordon outside the Palais Bourbon. Teachers, civil aviation staffs and postal officials were among those who stopped work. Public transport was not affected.

UNCOLLECTED REFUSE : Dustbins overflow with garbage in the Central Market of the capital. Such a scene is becoming familiar as the dustmen of Paris have been on strike several times in recent weeks.

PROCESSION OF PROTEST: With linked arms a mass of demonstrators marches along the Rue de Rivoli. Their favourite calls were "our wages" and "twenty per cent."—the latter being a reference to the recent devaluation of the franc. The demonstrators dispersed after listening to speeches.

THE LATEST TYPE OF COASTAL PROTECTION TO WITHSTAND THE FIERCEST GALES: The new sea wall runs along the front of the Esplanade at Seaford, in Sussex. Behind it is a section of the coast road and beyond, in the centre background, are the chalk cliffs of Seaford Head. A number of metal and timber groynes protruding into the sea break the force of the waves.

SEA WALL AT SEAFORD

New Defences Against the Elements in Sussex

Seaford front has suffered much in the past from the onslaught of gales, huge breakers battering it and undermining the foundations of the Esplanade. Now the inhabitants can feel secure, for the new sea wall is almost completed and the project should be fully finished by Christmas time.

The wall itself is most ingeniously designed. It is parabolic and stepped and thus the force of the waves comes against a cushioned resistance. But the principle of defence in depth has been carried further. Before any breaker reaches the shore its first fury will be broken by one of the seven groynes stretching 250 ft. out to sea. These structures are of great strength and built of timber and metal.

The cost of the coastal defence scheme is naturally high and is estimated at about £1,300,000. Three-quarters of the sum is being carried by the Government, the remainder is being shared among various local authorities. Seaford ratepayers will have to pay an extra rate towards both construction and maintenance. Few are likely to grudge it. The new sea wall will protect homes, hotels and roads along the coast and save them from the frequent repairs necessary hitherto because of damage which has been caused by storms.

ISTANCE TO THE WAVES: The finishing touches are put to one of the groynes running out from the sea wall. The metal and timber takes the first force of the breakers battering the coast.

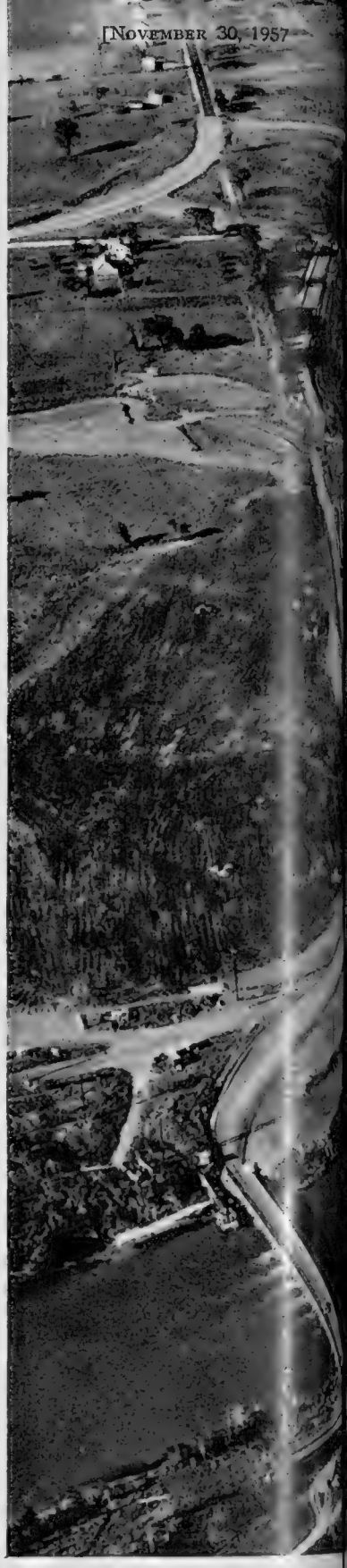
DESIGN TO DEFEAT THE ELEMENTS: *Left*—The steps on this sloping wall not only give access to the beach. They also give added protection against the battering of the structure by waves. *Right*—This section of the sea wall at the "Eversley Breach," in Seaford, is stepped and parabolic in shape. Such a design gives the strongest resistance to gales. The new groynes behind are each 250 ft. in length. The Seaford sea-defence scheme will be finally finished by the end of the year.

HARNESSING THE WATERS OF THE ST. LAWRENCE TO PROVIDE POWER FOR CANADA AND THE UNITED STATES: This aerial picture of the Long Sault Dam at Barnhart Island, in the International Rapids Section of the river, shows the three stages of its construction. Left foreground is the first and completed structure. Curving from it is the Spillway which will control the power pool for the hydro-electric station on Barnhart Island. Beyond is the north bulkhead section. The Long Sault Dam is only part of the great St. Lawrence Seaway scheme.

THE NEW SHAPE OF ST. LAWRENCE RIVER

Progress on the Great Seaway Project

THE COLONNADE OF THE ST. LAWRENCE POWER DAM: At first sight this appears to be the pillared front of some vast palace. In fact, the structure holds the ninety-six sluices for the 1,608-ft.-long power dam being built about three miles down-stream from the Long Sault Dam and running from Barnhart Island to the Canadian bank. At each end are the control buildings.



When the Queen goes to Canada in May 1959 she will inaugurate the greatest engineering project ever undertaken in North America—the St. Lawrence Seaway. Its purpose is twofold. First, it will allow ocean-going ships of considerable size to sail the whole way up the St. Lawrence and through the Great Lakes into the heart of North America. Hitherto the river has been navigable for large vessels only as far as Montreal. To enable them to voyage another 1,300 miles inland a vast programme is being undertaken of lock construction and improvement, of canal building and of channel deepening and widening.

Secondly, the waters of the St. Lawrence are to be harnessed in a mighty hydro-electric power scheme. The centre of the power supply will be Barnhart Island in what is known as the International Rapids Section—a stretch of the common frontier of Canada and the U.S.A. As the pictures on these pages show, huge dams are now well advanced in construction and work is reported to be running well to schedule. From the nature of its geographical situation, the Seaway undertaking is a joint Canadian–United States undertaking. The two countries are sharing the enormous costs and both will enjoy the great benefits of the finished plan.

MASSENA INTAKE: Construction is in progress on the power canal which runs from the south or United States side of the St. Lawrence to the town of Massena. Until the St. Lawrence Power project is complete it will provide hydro-electric power for Massena and later will supply industrial and domestic water.

On left—

A COMPLETED STRUCTURE: Work is almost finished on Iroquois Dam some twenty miles upstream from Barnhart Island and the cellular steel cofferdam in the foreground is soon to be removed. The structures at each end of the completed dam are travelling gantry cranes which control the thirty-two sluice-gates. Iroquois regulates the outflow from Lake Ontario into the St. Lawrence.

THE CORACLE STILL SURVIVES

Although they have Almost Disappeared from British Rivers they are still the Perfect Craft for Certain Waters

By BRIAN VESEY-FITZGERALD

IN this age of the glorification of the scientist and the technologist, in this age when man in his conceit dreams of conquering space, we might well pause and remember the achievement of one of the world's greatest scientists, that of the unknown prehistoric woman (I feel sure that it must have been a woman) who first thought of a basket.

Now that really was an achievement: an achievement infinitely greater than the splitting of the atom, an invention infinitely greater in its potentialities than that of the internal-combustion engine or the most powerful rocket, for it was an achievement which brought in its train nothing but good for mankind.

The woman, who first thought of plaiting together twigs or fibres to form a container, gave birth to the oldest of all man's crafts, basket-making—I think that there can be no doubt that the basket came before the pot. The idea of making clay vessels must surely have sprung from daubing baskets with clay to make them watertight—but she did much more than that. Her fertile brain, her initiative, gave to the world an idea which has been used by man through the centuries for almost every purpose from the cradle to the grave—literally from the cradle to the grave, for our word coffin comes from the Greek *koffinos*, which means "a basket."

These thoughts have come to my mind because I have just recently watched a man—on the Thames of all rivers—paddling a coracle. And, as Miss Marjory Wight has pointed out, the coracle is essentially a basket with a watertight covering. That prehistoric woman made possible man's adventure upon the face of the waters, for there can, I think, be little doubt that the coracle was the first form of boat to be used by man.

Perhaps she weaved her first basket by the banks of the Euphrates or the Tigris. Perhaps the first coracles voyaged on those waters. At any rate, Herodotus saw them on the Tigris: "Their boats which ply on the river are all of skins and round. First they cut frames of willow, then they stretch hides over these for a covering: the boat is round like a shield." And boats which fit this description absolutely are still to be seen on the Tigris. Whether they spread from the Tigris or not, boats of coracle construction gained a world-wide distribution. They were used by the Indians of North America and by the Chinese of the Yangtse.

The kayak of the Eskimo, though of a different shape (to suit the conditions in which it must be worked), is essentially a coracle. Even modern man has built coracles for transport in preference to other forms of craft. They were built for crossing the lakes on the way to Klondike after the passage of the Chilkoot Pass in Alaska: presumably, a southern Welshman gave his fellow-prospectors the idea. Yes, she was a wonderful woman, that prehistoric lady with the fertile brain and busy fingers.

No one knows how long coracles have been in use in Britain. It may be supposed that the first colonists to cross the Channel came in coracles. Certainly they were here long long before historic times. Until it was lost in the Blitz, there was in Hull museum a prehistoric skeleton which had been found in the clay of the river estuary in what appeared to be a basket-work coffin. It may well have been the remains of a coracle: a very early ship-burial.

The first mention of coracles in Britain comes, of course, from Julius Cæsar. Pliny tells us that the Britons brought tin from Cornwall to the Isle of Wight in boats of osier covered with hides. These were sea-going curraghs as opposed to river coracles. Solinus, writing in the third century, describes them crossing the Irish Sea: "small boats formed of pliant twigs, covered with skins of oxen." These were the craft the Irish saints used on their missionary voyages, and they are still in common use along the Atlantic coast of Ireland to-day.

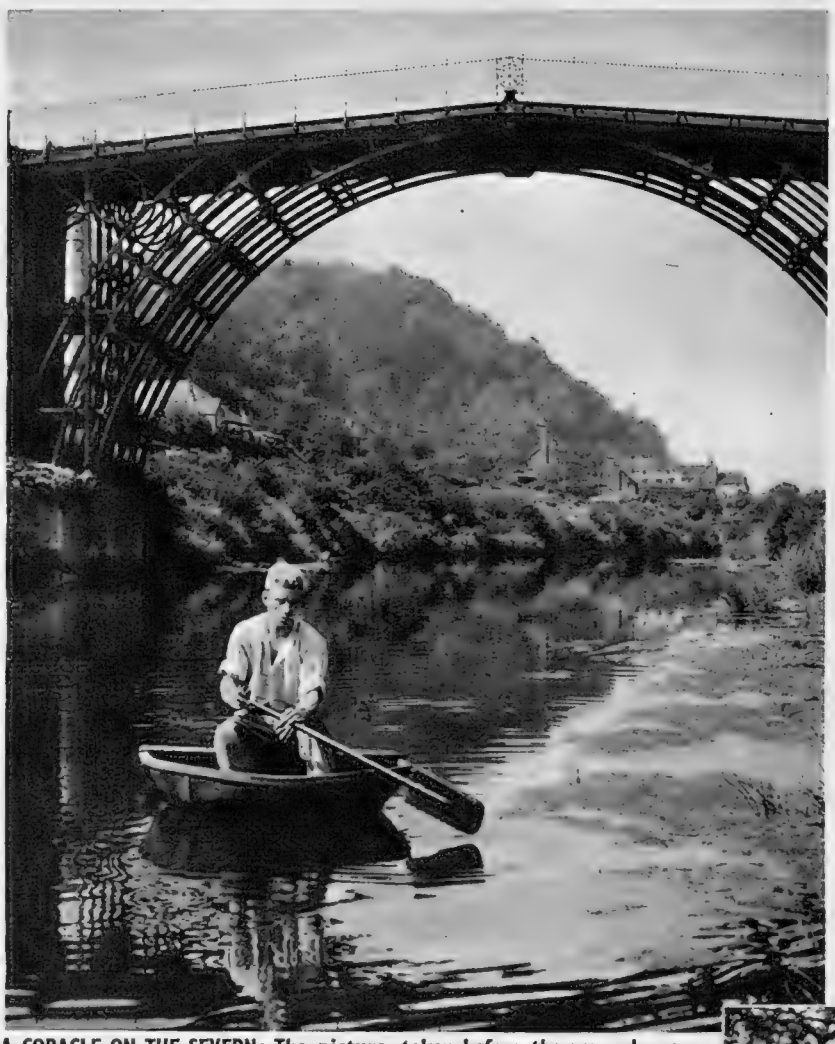
Giraldus, writing in 1188, gives us the first full description of the coracle as used in Wales: "the boats which they employ in fishing or crossing rivers are made of twigs, not oblong nor pointed but almost round or rather triangular covered with raw hides . . . the fishermen carry these boats on their shoulders." This is a perfect description of the modern coracle and its portage, except that since about 1870 they have been covered with stout calico waterproofed with pitch and linseed oil, which has, of course, lightened the weight considerably.

It may well be asked why the coracle has survived to the present day, why it has had a life of many thousands of years. Of course, folk are very conservative. The shapes, and even the patterns, of some modern pots are exactly the same as some made by prehistoric peoples. But conservatism alone is not sufficient answer. A thing survives only if it is efficient—the survival of the fittest—and the coracle has survived because it does the job for which it was first made, fishing and ferrying, so efficiently and so economically that there has never been a need to replace it by anything else.

Naturally, there are slight local differences between coracles, from river to river to meet local conditions. There are slight differences in shape between the coracles of the Teifi and the Towy—the latter are a little longer for one thing (though coracles everywhere are made to measure, so to speak, to suit the height of the owner)—and those of the Severn differ again. The paddles also differ in shape and length from river to river. But basically all coracles are the same, and the same as they have always been: wickerwork baskets with a plank across the middle for seat, drawing no more than 2 or 3 ins. of water, and weighing no more than 30 lb. They are the handiest and most easily manœuvred of all craft in swift and shallow waters.

Why, then, after all these thousands of years, have they almost disappeared from British rivers? It is a sad story of greed. The coracle is the craft of the professional fisherman, the man who nets salmon. The professional fisherman is not beloved by the amateur angler nor by the riparian owner. The coracle disappeared from the Monnow, the Usk and the Wye round about the beginning of this century. Netting is prohibited on the Severn above Tewkesbury Lock, and, though there are still a few coracles above Shrewsbury and around Ironbridge, they are now used only by anglers with a strong sense of tradition. The rights of the professional fishermen on the Dee were bought up in 1920, and if there are still coracles on the Dee (they used to be common all the way from Bala to the mouth) they are now only the playthings of sportsmen.

I have seen coracles on the Taf and the Cleddau, but I have not been to either river recently and do not know that they still exist. In any case, netting is now permitted only on three rivers in south-west Wales—the Taf, the Teifi and the Towy—and on these it is very strictly regulated and is slowly dying, for no new licences are issued except to the eldest son of a licence-holder. I believe I am correct in saying that there are now eight coracle fishermen on the Teifi, whereas fifty years ago there were fifty-two. Almost certainly, in the next generation, there will be none. The reason for this war on the net fishermen is, ostensibly, to conserve the population of fish. This is nonsense. For thousands of years these rivers have been fished with nets without depleting the fish population. It is not the fish that matter: it is the money. The riparian owner makes more out of the fly-fisherman.



A CORACLE ON THE SEVERN: The picture, taken before the war, shows one of the shallow craft at Ironbridge, in Shropshire. The ancient coracle has survived because it does the job for which it was first made—fishing and ferrying—so efficiently and so economically.

But the coracle will not disappear completely from our rivers. Though men may no longer fish with nets in the manner of their forefathers, they will still fish from coracles. For the coracle remains the perfect craft for these waters. And the truth of this is spreading. I believe that only one man in Wales is now making coracles, John Thomas, of Cenarth, but he is actually exporting them; a quite new departure. He has made coracles for anglers on the Thames—it was a Teifi coracle that I saw—and he has sent coracles to the United States, built to the measure of enthusiastic anglers there. John Thomas has made no concession to modernity: each of his coracles is a hand-made job in the manner of his forefathers. The coracle you may, perhaps, see on the Thames is essentially the same as the coracle that plied those waters in the days before the Romans.

IN SOUTH-WEST WALES: A coracle for use on the river Towy, and (*below*) a Teifi coracle man with his gear.

It is odd to think of in these days of sputniks. But that Thames angler, steering his slow (and, by Welsh standards, rather erratic) course from bank to bank has, I think, the rights of the matter. He is living in a real world, knowing where he is going and when he is coming back. Those with their eyes on the moon are planning a very expensive journey up a cul-de-sac.

THE LATE KING: George VI is portrayed in Garter Robes by James Gunn, A.R.A., President of the Royal Society of Portrait Painters. Shortly before the exhibition opened, Mr. Gunn had to paint out the sword-belt, which had been placed in error over the jacket of the naval uniform. James Gunn has three other paintings in the exhibition.

A NEW PORTRAIT OF THE QUEEN IN OILS: It has been painted by Leonard Boden, a Scots-born artist, for the Royal Military Academy, Sandhurst, and is on view at the sixty-fourth annual exhibition of the Royal Society of Portrait Painters, which is being held at the Royal Institute Galleries in Piccadilly. The Queen gave the artist eight sittings at Buckingham Palace, and this is the first portrait to show Her Majesty wearing the Mantle and Insignia of the Order of the Bath. It is the only portrait in the exhibition by Leonard Boden. At last year's exhibition one of the portraits of the Queen portrayed Her Majesty in the robes of the Order of the Thistle. It was the sketch by Sir William Hutchinson for the portrait in the Merchants' Hall in Edinburgh. The exhibition at the Royal Institute Galleries this year continues until December 21.

ROYAL PORTRAITS IN LONDON

They are on Show at the Sixty-Fourth Exhibition of the Royal Society of Portrait Painters

COLONEL-IN-CHIEF, THE WEST YORKSHIRE REGIMENT: The portrait of the Princess Royal is by Rodney Wilkinson, whose other portrait in the exhibition is of the Bishop of St. Edmundsbury and Ipswich.

THE ROYAL CHILDREN: Prince Charles, Duke of Cornwall, and Princess Anne have been portrayed by Mr. A. K. Lawrence, R.A., R.P. They are dated Windsor, April 24, 1957. Mr. Lawrence's other portraits at the exhibition include those of the Duchess of Gloucester and of her two children.

A NEW ROLE FOR AN AIRCRAFT-CARRIER: At the shipyard of the Bethlehem Steel Company, on Staten Island, New York, a 15-ton smokestack is being lowered between two cranes into position on the former escort aircraft-carrier H.M.S. *Attacker*. The escort carrier is at present being converted into a 1,500-passenger liner, to be named the S.S. *Castel Forte*, for an Italian shipping line. The liner will be brought into service between Europe and Australia.

ON STOCKS, BEACH AND WATER

Construction and Launchings in Four Countries; Small Boats in Norway and Germany; and Helping Hands for a New British Lifeboat

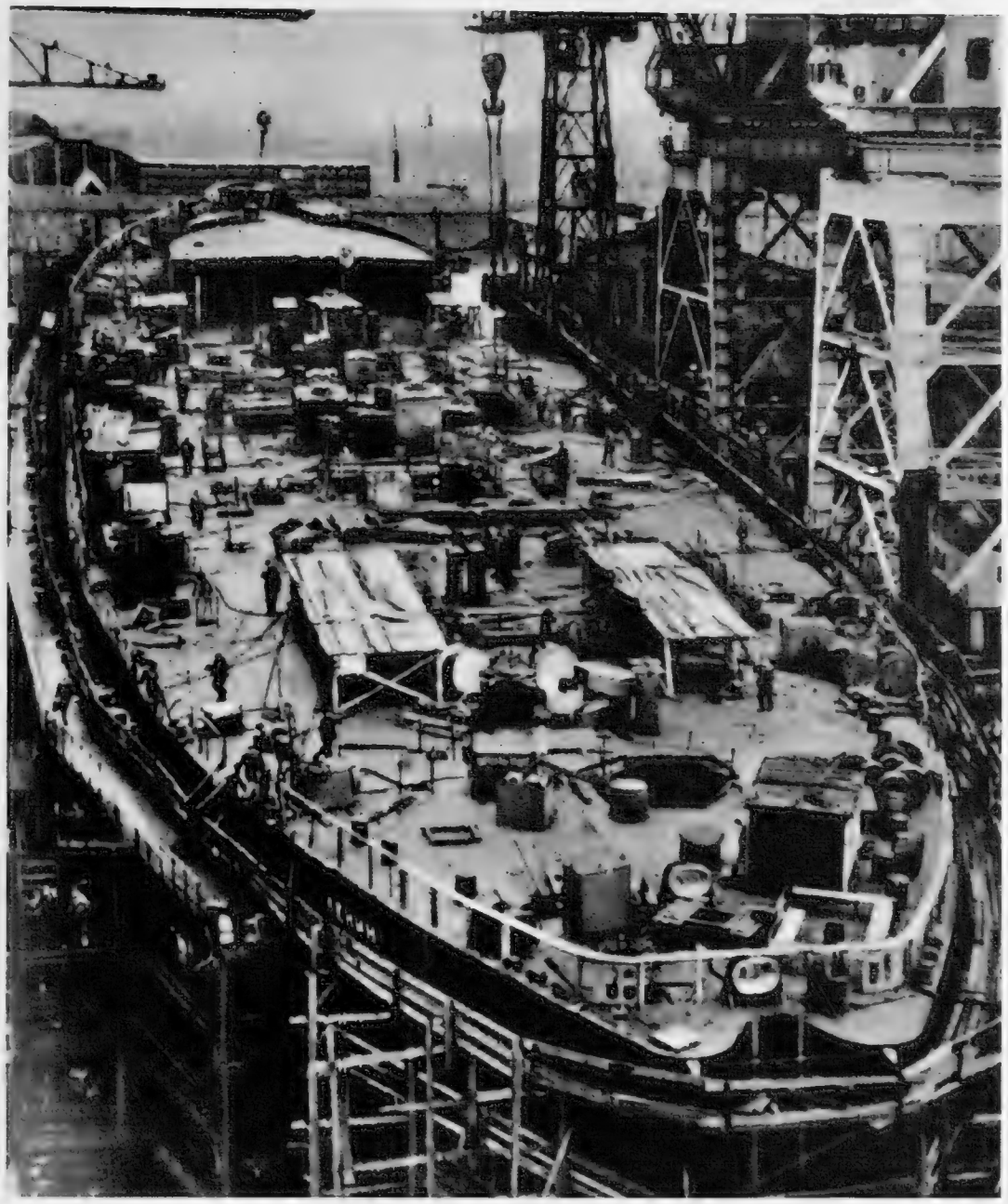
WOMEN ANSWER THE LIFEBOAT'S CALL: At Dungeness, in Kent, some of the womenfolk haul the new and most up-to-date beach-type lifeboat, *Mabel E. Holland*, up the shingle beach. Because there are too few menfolk to man and haul the lifeboat at this lonely Romney Marsh station, the wives and daughters of the local fishermen often take their places alongside their partners in times of distress. It is claimed that this is the only station in England where women are essential in getting the lifeboat out to sea.

HANDING OVER THE FIRST PATROL BOAT TO THE GERMAN FEDERAL NAVY: Naval officials are among the crowds gathered on a wharf near Bremen–Vegesack to watch the first patrol boat being handed over to the German Federal Navy. Before the Navy was re-formed a number of these patrol boats, which are capable of fast speeds, were in use with the Federal Ministry of the Interior.

LAUNCHING A NEW COASTAL MINESWEEPER: The customary naming ceremony having been performed, H.M.S. *Dumbleton* slides down the slipway into the water at the Belfast shipyard of Messrs. Harland and Wolff Limited. The vessel, which is 152 ft. in length with a beam of 30 ft., is armed with three guns. Her construction incorporates the use of aluminium, both for the framing and structural castings, the outer bottom being wood planked

A POWERFUL NORWEGIAN MOTOR TORPEDO BOAT DEMONSTRATES HER CAPABILITIES: The craft, named *Nasty*, and seen here at speed during a trial run in Norwegian coastal waters, is claimed by the makers to have a greater range, speed and cargo capacity than any other craft of a similar type. Designed by Jan Linge, the son of a Norwegian World War II hero, *Nasty* has been built according to Norwegian naval specifications for a Norwegian firm, Boat Services Limited, A.S. She has a displacement of 68 tons. Powered by two Napier Deltic diesel engines developing a total of 5,000 h.p. on the regular diesel oil used by Norway's large fishing fleet, the boat is said to reach a velocity "exceeding that of any craft with similar cargo capacity and range." *Nasty* is designed to operate at speed in narrow and difficult waters. A number of countries with coastal defence problems similar to Norway have expressed interest in the design. The hull is unusually broad, having a rounded foreship and tapering off aft. She is built of Honduras mahogany, the keel and deck planking being of ash.

A VISITOR FROM ATHENS NAMES A NEW VESSEL: The 13,000-ton shipping vessel *Atlas* is about to begin her journey down the slipway at the South Shields shipyard of John Readhead and Sons, Ltd. The ceremony of naming the boat was performed by Miss K. Poutous, who had travelled from Athens for the occasion. She is the daughter of a friend of Mr. Michael Xylas, the head of the Anax Shipping Co., Ltd., of Panama, for whom the *Atlas* has been built.



AN ATOM-POWERED ICE-BREAKER UNDER CONSTRUCTION IN RUSSIA: The world's first nuclear-powered surface ship, the Soviet ice-breaker *Lenin*, is seen under construction in a shipyard at Leningrad. Unlike an orthodox ship, on which the building starts with the keel, the entire hull rising gradually until the main deck is laid, work on the *Lenin* during the first year of building was concentrated on the centre section. Work on the vessel is now well ahead of schedule and she is expected to be launched early next month. When completed the ship will weigh about 16,000 tons and she will be used primarily to patrol the waters along the northern sea route to the north of Siberia.

The World of Books

ANGRY YOUNG PEOPLE

A Symposium by Youthful Writers ; Essays by Oliver Edwards and Julian Huxley ; George Bishop's Autobiography ; A Fine Novel of Childhood and Adolescence

IT is perhaps an odd thing that the identifying label of new young writers should have become angriness. Eight of them, seven young men and one young woman, have found a platform from which they can declaim their faith and literary tenets in a book called DECLARATION (Macgibbon and Kee. 18s.). Each has been at liberty to state his or her case and by no means all these cases have been parallel. Their common denominators are youth—that revered quality which here includes writers from the ages of twenty-four to thirty-eight—and a philosophical approach to life and letters which, if not entirely original, is at least highly individual. Mr. Colin Wilson (*The Outsider*) is the youngest; Miss Doris Lessing (*The Grass is Singing* and other admirable novels of South Africa) is the most mature. Their manifestos may not be wholly representative of contemporary writing in this country but they do give the serious reader an indication of the viewpoint of some significant writers.

TALKING OF BOOKS (Heinemann. 21s.) is a collection of eighty or more brief essays or pieces written by Oliver Edwards on literary matters—authors, subjects, moods and criticisms—which first appeared in *The Times*. I suppose that the secret of the fresh impact that every one of these short articles makes, lies in the author's liveliness of intellect and the fact that, with all his very evident erudition, he has always retained the magical capacity to wonder. Astute, penetrating, scholarly: all these attributes can be granted to him but what the reader of this column has found in the last two years or so has been the freshness with which every new question was attacked, the vitality which made a short discussion of Tyl Ulenspiegel just as rewarding as an analysis of Arnold Bennett's work. Oliver Edwards reads books and writes about them for no other reason (there is certainly no better) than that he enjoys them.

If a critic can be said to be well loved, it would be George Bishop, who now adds to his accomplishments with the publication of his autobiography, modestly entitled MY BETTERS (Heinemann. 25s.). His reminiscences are rich in personality and incident and there is scarcely a famous figure in the theatrical and literary worlds who does not add light and interest to his pages. Perhaps this reviewer may be forgiven for making special reference to a story Mr. Bishop tells about his friend, James Agate, who at that time was literary critic of the *Daily Express*. He had to tackle *Anthony Adverse*, one of the longest novels ever written, and he told George Bishop's wife (who at the time was reviewing books for *Woman's Journal*), that he had not the time even to skim the book. " Would she be a dear and write a long notice for him in the *Express* style ? . . ." A week later he had the grace to send her a letter he had received from Arthur Christiansen, the editor, telling him that the review was the finest thing he had written for the paper. She didn't expect to get his fee for the article and wasn't disappointed!

The vast range of scientific and literary experience which is the glittering yet rocklike background to Dr. Julian Huxley's writings may occasionally intimidate the reader but this would be a great pity if only because it deterred him from studying such books as NEW BOTTLES FOR NEW WINE (Chatto and Windus. 21s.), Dr. Huxley's latest collection of essays. In this he touches on such disparate subjects as Wordsworth's expression of the experience of beauty, belief in the spiritual efficacy of pilgrimages, mythology and the breeding distribution of the Loon.

A REED SHAKEN BY THE WIND (Longmans. 21s.) is Mr. Gavin Maxwell's account of a journey through the great marshes which surround the lower reaches of the Tigris; an unexplored, largely unsurveyed region, which offered all the more interest to an unconventional traveller. It is not difficult to imagine Dr. Huxley reading and enjoying this book with its sensitive descriptions, its acute observation and its complete lack of the clichés of travel book banalities. The author has been described as a " man of action who writes like a poet " and it would be difficult to better that line. I should add that Mr. Maxwell's humour is a delight and so are the photographs with which he has illustrated this distinguished book.

THE BLITZ (Wingate. 25s.), a volume by Mr. Constantine Fitz Gibbon based on the experiences of Londoners in the winter of 1940, has been illustrated by drawings which Mr. Henry Moore made at that time and on the spot. Many of us would like to forget that period; some of us have even succeeded in pushing it to the backs of our conscious minds and I am not too sure how good a purpose a book like this serves. If we were there, no reminder can ever be necessary. If we were not, the drawings alone—and the best of them is reproduced on the cover—would be enough to record the terror, the squalor, the endurance and the courage.

MIDWAY—THE BATTLE THAT DOOMED JAPAN (Hutchinson. 25s.), is the Japanese Navy's own story of that decisive action, and has been told by a former captain and a former commander of the Imperial Japanese Navy, Fuchida and Okumiya. Reading it and remembering what one learned through the necessarily attenuated newspaper reports of the time, makes those days of 1942 terribly close again.

The list of those who have written without affectation, without effusion but with the most sharply focussed realism about children (which has a paradoxical effect of great tenderness) is very, very short. There is, however, one newcomer to the ranks of Salinger and White, and this is Miss Elizabeth Montagu whose novel, THIS SIDE OF THE TRUTH (Heinemann. 15s.), makes one feel that a known

ACCLAIMED BY THE CRITICS: Miss Siân Phillips, a twenty-four-year-old student actress at the Royal Academy of Dramatic Art, London, has achieved the unusual distinction of wide and favourable comment in the Press for a non-professional performance. She is seen here on the stage and in her costume for Ibsen's *Hedda Gabler*, which was recently performed privately at the Vanbrugh Theatre after a triumphant visit to the author's Norway.

author is being discovered all over again. The principal character in this restrained and sensitive book is a girl between childhood and adolescence, who sees and records a great deal more of adult life than she herself recognises and who is, in turn, delineated by the author with a splendidly unsentimental and yet touching accuracy.

SUNDAYS FROM TWO TO SIX (Peter Davies. 13s. 6d.) is Miss Virginia Abaunza's story of another young girl in a bewildering adult world, working out her problems and guessing at her parents' worries with her c kind of immature philosophy and good will. The settin American but the questions and the attempts at answers more or less universal in our contemporary world. A li slick in treatment but, on the whole, one of those novel which it might be said that its heart was in the right pl

Mr. Peter Wildeblood's first novel is THE MA CHANCE (Weidenfeld and Nicolson. 13s. 6d.), and again is not only highly contemporary but has a m familiar London background against which a liv pageant of TV stars, Cockney children, ghost writ newspaper proprietors and other local fauna disp themselves. The carefree tone is set with the open sentence: " As he jumped on board a No. 15 bus Ludgate Circus, Bill Flitch wondered how much he co safely charge on his expense account," and lasts throu out the story which I found consistently amusing.

THE GREAT THIRST (Hutchinson. 15s.) is a no of considerable originality by Mr. Hans Ruesch and too, sounds a topical note. The narrator throughou a Moslem, a young man who is the son of a Sultan who finds that the greatest influence in his life is oil, discovery and its exploitation by Europeans. In Arabian peninsula, where this consideration affects at so many points and with such a revolutionary impa the story could have been told from many angles. T fact that Mr. Ruesch has told it from the viewpoint of new generation, deeply engaged in the question, gives book an impulse comparable with headline news.

THE OBSESSION OF EMMET BOOTH (Golla 13s. 6d.) is a New York novel by Miss Mar Albrand writing as " Katrin Holland." It is abou young woman, her lost love and the new one who purs her through her roamings between home, Paris London. Written with grace and compassion.

I have always believed that the short story form one of the most difficult to perfect and, by the same tok it has always surprised me that so many writers attemp it with more bravado than technique. One of the Eng masters, however, is Mr. H. E. Bates. In SUGAR F THE HORSE (Michael Joseph. 12s. 6d.), he has contin a series of tales about a character called Uncle Silas w has become a part of English folklore. He has reach that eminence only through the very particular genius Mr. Bates who is, first of all, a heaven-sent teller of sto and, secondly, the literary equivalent of an extractor essences. His new volume is a delight, a reminder the English scene thirty or forty years ago and an en tainment in the best sense of the word. The illustrati by Mr. Edward Ardizzone are best and most appr atively described as extensions of the stories themselv

AMONG THE DAHLIAS (Hogarth Press. 15s.) a collection of fourteen short stories by M. Willi Sansom, most of them set in London, as against Midlands of Mr. Bates' loyalty, and having th asperi and full turns of phrase for which Mr. Sanso 's writ is known. Ironic, drily affectionate towards some of characters, sharply observant and more often bitter, t volume bears the unmistakable signature of its auth

A COLLAR FOR THE KILLER (Heinema 13s. 6d.) is what our Australian cousins would cal beaut. And they would be right. Mr. Herbert Brean wr this story of New York detection, and the simplest way describing it is to say that it is extremely tense, builds to a succession of climaxes and, in a word, is good.

Vernon Fan

A GREAT CARDINAL

Dedicated Life Among the Africans

Charles Marshal Allemand Lavigerie (1825—1892), Cardinal Archbishop of Carthage and Algiers, landed in Africa in 1868 to take the See of Algiers, when the great famine was beginning to make itself felt. At once he began to collect the orphans into villages and although he met with official French opposition designed to protect the Mohammedan church from proselytism, he won his point, refused the proffered Archbishopric of Lyons, and in due time cast his magic spell over the whole of Equatorial Africa. In THE WHITE FATHERS (W. H. Allen. 25s.) Glenn D. Kittler tells the dramatic story of Lavigerie and those who worked with him, helping to bring an end to slavery, ignorance and fear, to convert by example and to improve the standard of life of the Africans he loved. This is a most moving book about a dedicated man and his followers who, a century ago, foresaw the African needed from the white man but one thing, the opportunity for self improvement.

This year the Alpine Club celebrates its centenary. As a tribute and a token of the long-proved friendship between British and Swiss mountaineers the Swiss Foundation for Alpine Research have produced A CENTURY OF MOUNTAINEERING (Allen and Unwin. 30s.). Arnold Lunn, who is old enough to have met Whymper and Freshfield, and young enough to respect the massive achievements of the modern school, is the author of this lively tribute, which is not only for those who climb but for a much wider public.

Here is good news for concert-goers and opera-lovers, two massive volumes, in part factual, in part analytical, and intended to make concert-going and opera-going more pleasurable. Henry W. Simon's THE FESTIV OF OPERA (W. H. Allen. 30s.) takes some of the worl best-loved operas, telling the stories in a readable a engaging manner. It must, indeed, be the most comp hensive work of its kind, ranging as it does from Vec (1594) to Gian Carlo Menotti in our own day. T ANALYTICAL CONCERT GUIDE (Cassell. 42s.) edited by Louis Biancolli and William S. Mann. I largely technical in approach, and over 470 works minutely examined. Here is an invaluable single-volu reference-book for everyone interested in listening music, whether in the concert hall or on records.

THE HORSEMAN'S YEAR (Collins. 16s.) edited by Colonel W. E. Lyon, and edited very w Hardy annual though it has now become, it is full variety and often has a touch of the unexpected amo all the features that are inevitably expected, to wit season on the flat, over the sticks, and in the show ri This year's edition has a delightful chapter on *The Gy and his Horse*, by Antony Hippisley Coxe, while Ste Walker's *Recent Long Distance Rides* also has the acc upon the unconventional. Without doubt Colonel Ly has discovered the basic ingredients for an ann volume which will always be awaited eagerly.

On the whole, children's books seem to get bet and better; typographically they are excellent, and

DUNKIRK AND BURMA

BEFORE THE DAWN, by Brigadier Sir J. Smyth, V.C. (Cassell. 25s.), which is a well-written account of two famous retreats—Dunkirk and Burma—is in a sense a self-justification. In military history, probably no other retreats called for such endurance by our troops and such last-minute improvisation by their leaders. The personal experiences of commanders in desperate efforts to save the remnants of their units are always exciting and moving; and familiarity gained in World War I with the terrain enabled me to follow very clearly the Dunkirk retreat. There, as in Burma, the strain placed on battalion and brigade commanders by constant abandonment of hastily prepared positions suggests lack of intelligence and purpose by the Higher Command. There was every excuse for Gort, who had reason to rely on the Maginot Line and the Belgian Army and could not have foreseen the simultaneous cracking on both his flanks. In Burma, Wavell from India obstinately underrated the efficiency and strength of the Japanese and neglected the warnings of commanders on the spot. Thus General Hutton was forced to refuse Smyth's request to withdraw to the Sittang River while yet there was time. Four vital days were wasted attempting to hold the advance at Bilin, and when Smyth had to make the fearful decision to blow the Sittang bridge to delay the fate of Rangoon, less than half his division of Gurkhas and Burma Rifles was across. Utterly untrained in jungle warfare, totally lacking air cover and support, tanks and modern equipment, these half-trained troops responded superbly to leadership in a hopeless task. *Before the Dawn*, to put it mildly, is a record of two "soldiers' battles." Put more forcibly, it shows what soldiers can do when their High Command, excusably or not, is blindfold by lack of intelligence and an outmoded technique. Such, I think, is the author's contention.

SOCIAL HUMORIST

Sir Shane Leslie's task in EDWARD TENNYSON REED (Heinemann. 25s.) was no doubt a difficult one, but the result of his editing and linking passages is sometimes irritating repetition. Of the collaborating editors on E. T. Reed's autobiographical papers, it must be said that Mr. Bird comes out best. He has chosen splendidly among the range of well-remembered *Punch* cartoons and caricatures.

E. T. Reed was the son of Sir Edward Reed, famous ship-designer who built ships for the Japanese Navy and the Russian Court when not engaged in work for the Royal Navy. Later in life he joined Sir J. Whitworth in making big guns. He lived among "big guns" and his young son had wonderful opportunities to see the world and study the famous. At a very early age, while still an amateur of comic drawings, he was taken on by Burnand of *Punch*, and quickly became a leading member of the famous staff of contributors. He "learned while he earned"—and recorded his impressions of the famous in Parliament and on his travels. Balfour, the rising Winston and the Irishmen were constant victims of his pointed but kindly pen. His *Punch* notions won immediate praise, and it is odd that his "museum pieces"—his *Prehistoric Peeps* and *Animal Land*—so far from suggesting to-day a Victorian visit on a wet afternoon to South Kensington, remain as fresh and pointed as when they burst on a public hungry for new humour fifty years ago. An unusual autobiography—far removed from the "Lady Addle" type—and well worth reading and keeping as social history and lively humour and criticism.

John Gore

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the most part there has been no criticism on this score for a long while; illustrations have been the special concern of publishers, and Thomas Nelson of Edinburgh have obviously gone to great lengths in their *picture graphies* to present pictures that are in the right spirit. Four new volumes in the Picture Biographies series are Elizabeth Kyles' MAID OF ORLEANS, the same author's QUEEN OF SCOTS, Mary Fitt's MAN OF JUSTICE, the life of Solon, and Robert Churchward's EXPLORER LOST, the story of Colonel Fawcett, who disappeared so dramatically into the Brazilian jungles. All four books are published at 10s. 6d. and all four are illustrated by Robert Hodgson.

It is perhaps unkind to do anything other than sing the praises of such a worthwhile effort as the Country Life PICTURE BOOK OF BRITAIN IN COLOUR (Country Life. 25s.). It is marvellously well done, it is not expensive, but somehow or other colour blocks are not the only answer in presenting Britain in all its variety and wonder. And the praise that at once leaps to mind for a lavish effort is not readily justified. Even so, there is technical perfection here, and some of our finest photographers have contributed to this symposium.

Another lavishly illustrated book is Marcel Belviane's EXOTIC PLANTS OF THE WORLD (Rathbone Books. 25s.). This is a testimony to the adaptability of plants, their ability to find a niche for themselves in desert, jungle or high mountain. Orchids, cacti, and other succulents are presented both in colour and half-tone.

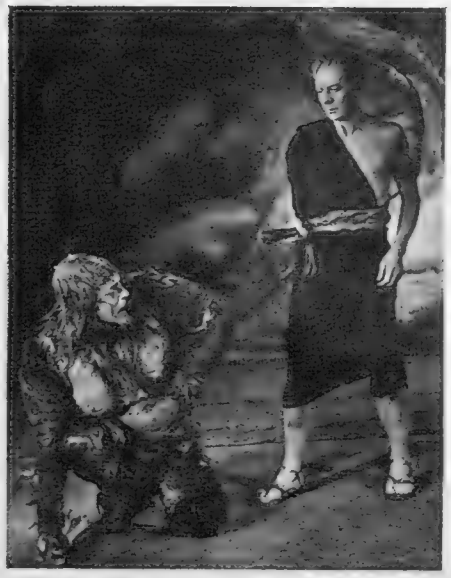
R. C. E.

SHAKESPEARE RETURNS TO DRURY LANE: In Peter Brook's Stratford production of *The Tempest*, Caliban, Prospero's monstrous servant (centre), is played by Alec Clunes. The two clownish shipmates, Trinculo (left) and Stephano (right), are played by Clive Revill and Patrick Wymark.

A YOUNG FERDINAND: Richard Johnson as the lover in one of Shakespeare's most delightful romances.

GIELGUD AS PROSPERO

Shakespeare at Drury Lane was once commonplace—in the days of Garrick, Kean and Mrs. Siddons. In recent years the great Theatre Royal has been the home of the American musical, but for seven weeks from December 5 the tradition is revived. The Shakespeare Memorial Theatre Company is bringing *The Tempest* to London. Prospero is played by Sir John Gielgud and Alec Clunes is Caliban. The direction is by Peter Brook, who is also responsible for the music and decor. It is said that this is one of the most outstanding recent Stratford productions, and the exciting direction of Peter Brook, and the charm and enchantment of Shakespeare's verse, is likely to make *The Tempest* a formidable competitor with the pantomime season.

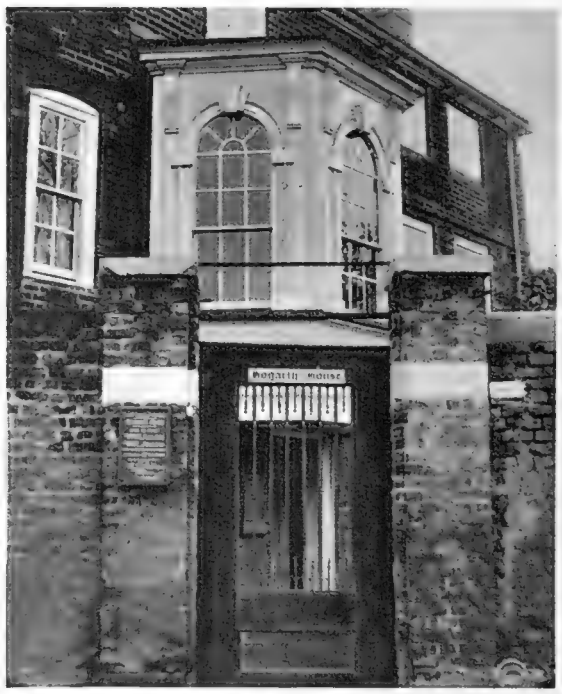


SERVANT AND MASTER: Alec Clunes in the role of Caliban is cowering before Prospero, played by Sir John Gielgud.

ONE OF STRATFORD'S MOST OUTSTANDING PRODUCTIONS: Ariel, on the extreme left, is played by Brian Bedford, Sebastian by Robin Lloyd, Gonzalo by Cyril Luckham and Antonio by Mark Dignam. On the right, sleeping, are Alonzo (Robert Harris) and Adrian (Toby Robertson). The Shakespeare season at Drury Lane will delight audiences at the famous theatre.

A CLOSER VIEW OF HOGARTH HOUSE

The Artist's House at Chiswick, in Close Proximity to the New Great West Road, is now open to the Public Throughout the Year



THE ENTRANCE TO HOGARTH HOUSE: The gateway to the home of the eighteenth-century artist is in Hogarth Lane, Chiswick. As this road is being widened the red-brick house is now more clearly visible and is consequently attracting greater public attention. It is maintained as a museum by the Middlesex County Council and, with the exception of Christmas Day and Good Friday, is open to the public throughout the year. On show inside the house is a display of Hogarth's works, as well as relics connected with his life and souvenirs collected since his death in October 1764. Although the furniture is not connected with Hogarth, it is of his period. A brass plate records the names of the various owners who occupied the house between Hogarth's day and 1902, when it was purchased by Lieut.-Colonel Robert W. Shipway, of Grove House, Chiswick, "in order to save it from being demolished." The plaque continues: "and by restoring the building has preserved it to the nation and the art world in memory of the genius that once lived and worked within its walls." Before then it had been used as a common lodging house and had fallen into disrepair. The house is in two parts; the earlier part is believed to date from the late seventeenth century.

IN THE WALLED GARDEN OF HOGARTH HOUSE: In Hogarth's day the house was set in rural area; to-day it is adjacent to a laundry and a shoe polish factory. Hogarth favourite mulberry-tree, which is over 400 years old, still stands and fruits. C *left*—A side view of the house from Hogarth Lane. During the war the house w damaged by bombs, but has since been repaired. It is open on weekdays fro 11 a.m. to 4 p.m.; on Sundays from 2 p.m. In the summer the time is extende to 6 p.m. Admission fee is 1s., but on November 10, the anniversary of Hogarth's birth, it is free. Hogarth is buried in the churchyard of Chiswick Parish Churc .

OVER THE GARDEN WALL: *Left*—Beyond the 200-year-old red-brick wall the road is being widened. It runs from Hammersmith to the Great West Road. *Right*—The view looks along the front of the house towards the gateway, and shows the bay window which protrudes over the doorway. Hanging over the fire-place in this room is a self-portrait of the artist and his dog. Hogarth lived in the house during the summer months from 1749 until a very short time before his death.

MORE POWER TO THE MINER'S ELBOW

By "THE SPHERE" INDUSTRIAL CORRESPONDENT

"A MINE," an American manufacturer of coal-cutting equipment once told an English visitor, "is just an underground factory with moving walls—which it extends by consuming them." He was trying to emphasise that for the engineer coalmining is merely another production problem, to be approached with the same confidence that its technical performance can be improved as one does any process on the factory floor. Essentially it is the same. Certainly a little more of the breezy technical confidence with which mining engineers in the United States approach their problems would be a valuable import into British coalmining.

At the same time, it is only fair to say that this maker's most impressive mining machine, which was introduced into British mining as long ago as the war, can still be used here only on about a dozen coal-faces. Even a special version of it redesigned for the method of mine layout used in most British mines does not seem to be much more widely applicable. It is quite practicable to mechanise almost any process in mining, like any job in a factory. The difference is that in the next mine one may need an entirely new machine to do exactly the same job.

In any extractive industry it is the product that is fixed, not the equipment; and so are the physical conditions in which one has the job of producing it. In every big mining industry these physical conditions vary immensely from coalfield to coalfield and even from pit to pit; how deep the seams of coal lie, how thick they are and whether they lie flat, "faulted," or sloping in the earth; whether the strata above are stable or shifting, wet or gassy; how easily the coal itself can be broken up and shifted. It will be mainly the demand for his product, plus the sheer level of technique, that determines how far a mining engineer will push his working into worse and worse conditions to secure coal: plus the age of his industry and the amount of coal it has left in the ground. No one machine will serve in all these varying conditions. The best one can hope for is to develop a fairly limited range which with local adaptation can be made to cover most of one's productive mines.

Old industries such as the British and the German have long ago "picked the eyes out" of the best coal seams and those nearest the surface, as the American coal industry is still engaged in doing to-day. On this side of the Atlantic, though the coal reserves are still many years from being exhausted, one can broadly say that the easy coal has gone. Every new coal-face opened is liable to take a little more effort than the last. In Britain and Germany, coal has to be got from far thinner and more difficult seams than any American mine yet needs to be bothered with; by the same token, some of the machines with which high productivity has been achieved over there are of little use in our mines.

The use of machinery in British mines now goes back about eighty years, and most of the basic designs of coal-cutters actually originated in this country. It was not until the First World War that American manufacturers entered this kind of technology in a big way. During the '30's mechanical cutting of coal established itself as the central operation of conventional mining. In 1938,53 per cent. of all Britain's coal produced was cut by machine, and the proportion is about 90 per cent. to-day. An ordinary coal-cutter usually cuts a deep "groove" 4 or 5 ft. in under the bottom edge of the coal seam that is being extracted.

This undercut coal-face is then broken and brought down by shot-firing with explosives. Then it is conventionally loaded by hand on to a "face conveyer" and carried along to the main roadway system (where it will go to the bottom of the pit shaft by wagons or a larger conveyer). The operations of cutting the coal, blowing it down, loading it on to the conveyer, and then moving forward the whole roof-supporting system of props and bars, lend themselves to a 24-hour "cycle" of mining, each operation being carried out by different teams.

It is into this widely-established system of machine-cutting, plus hand loading, that power-loading systems, now the main spearhead of the coalmines' further mechanisation programme, have been introduced since the war. Most of these machines have actually been installed since nationalisation in 1947. Nearly all were developed by private manufacturers of machinery and some to orders or specifications placed by the private coal owners before the National Coal Board took over.

POWER-LOADING MACHINES AT THE COAL-FACE: A Meco-Moore is at work in the Frances Colliery in Fifeshire. This pioneer machine, developed by British enterprise, is now a veteran in the pits. *Left, below*—At Welbeck Colliery in Nottinghamshire an Anderton Shearer Loader drives into the coal. Cutting speed can be as high as 10 ft. per minute with this machine.

So there is little firm ground here for argument about the comparative progressiveness of private or public ownership of the mines. The original impetus for this post-war programme of mechanisation came from a third party, the Ministry of Fuel and Power, which, when it was set up during the war, attempted to stem a dangerous decline in coal output by encouraging mechanisation, even importing American coal-cutters on Lend-Lease.

Power loading completes the chain of mechanisation in coal production. The term was originally used for machines that picked up coal that had already been cut or brought down by explosive and put it on to the conveyer, but from the time that the late Mr. Matthew Moore began to experiment in the mid-thirties most power-loading machines have cut the coal as well as loading it. This mechanised the one step that is still done by hand—though with remarkable knack and speed—in conventional mining. It makes the mining process much more continuous. When used with roof-supporting equipment that can be moved rapidly or even automatically forward, it can cut out the traditional cycle of separate operations and make much fuller use of the rapacious tearing power of the coal-cutting machine.

Since the war the National Coal Board has received a number of power-loading machines developed by British manufacturers—led by the famous Meco-Moore; has imported others from any country that had promising models to offer, notably America, Germany and Canada (it has recently looked as far as Russia); and has originated or adapted ideas and specifications for others within its own organisation, usually placing development contracts with manufacturers to turn these into practical machinery. There is a very wide variety of power-loading equipment at work in different British mines to-day. After many false starts and disappointments a few have been evolved that can be used fairly widely. At the end of last year there were about 162 Meco-Moores operating and more than 215 Anderton Shearer Loaders. No other machine was employed in anything like these numbers: the other 550 in use included about a dozen different types. But to have developed machines that can go on to hundreds of coal-faces, in mining conditions as varied as those of Britain's 900 mines, is something of a technical triumph.

These are massive machines, usually employed in conjunction with flexible conveyers that can be moved up to the coal-face in advance of the line of pit props. Most of them are electrically powered, with special flame-proof motors. The only other kind of power safe in most British pits is compressed air, and the power required for power-loaders is generally beyond the range of such pneumatic power equipment. The machines have to be built with great robustness, and at the same time for maintenance and repair on the spot, underground.

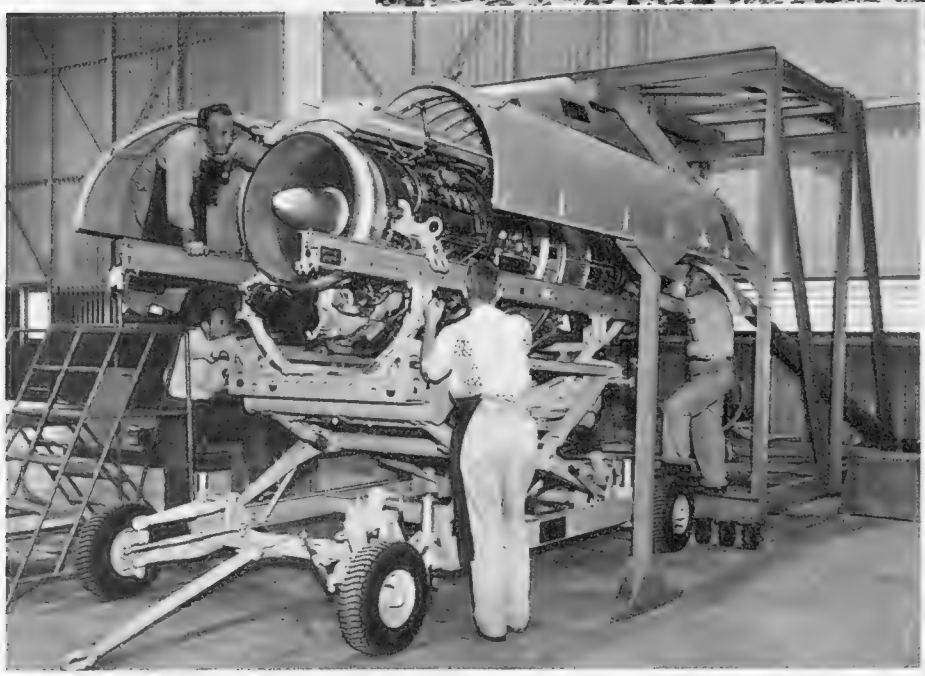
To-day, about 50,000,000 tons of coal a year, nearly a quarter of the output of Britain's mines, are being power-loaded. In the last two years, this figure has risen about two-and-a-half times. This is largely due to the fact that the Coal Board, having developed a number of promising machines to an advanced stage and tested them fairly widely, decided to go all out and get as many into actual production as possible. There has seldom been any trouble over their introduction on to coal-faces where their work was originally done by hand. The miner, particularly the younger one, seems generally to have enjoyed the shift from back-breaking physical work to machine operation—though even this job is still strenuous by most standards and hazardous by any.

So far, it cannot be said that these machines have done a great deal to improve total output or to cut costs. In a year or two, when some of those installed recently have been run in and are working closer to their theoretical capacity, such results may be forthcoming. Moreover, in the much larger proportion of small coal that some of them produce in comparison with hand-loading methods, there have arisen some problems for the coal industry. But there seems no question of halting or turning back. The power-loading drive is one of the few elements of coal investment that is achieving tangible results quickly, without years of delay. It is one way of diminishing the dependence on hard human labour that so hampers coalmining in this twentieth century.

On right—

COLLECTING LEAVES

Considerable interest was caused in Hyde Park last week when a Lundell Forage Harvester, an American-designed machine for gathering litter and fallen leaves, was successfully demonstrated. By a unique but simple process the leaves are gathered by suction and blown into a trailer which is enclosed by a fine wire mesh. The harvester was first imported into Britain last year and it is now being made under licence. It performs its task equally well in either parks, recreation grounds or on estates. The demonstration in Hyde Park was by Ben Turner and Son Limited of Dorking, Surrey.

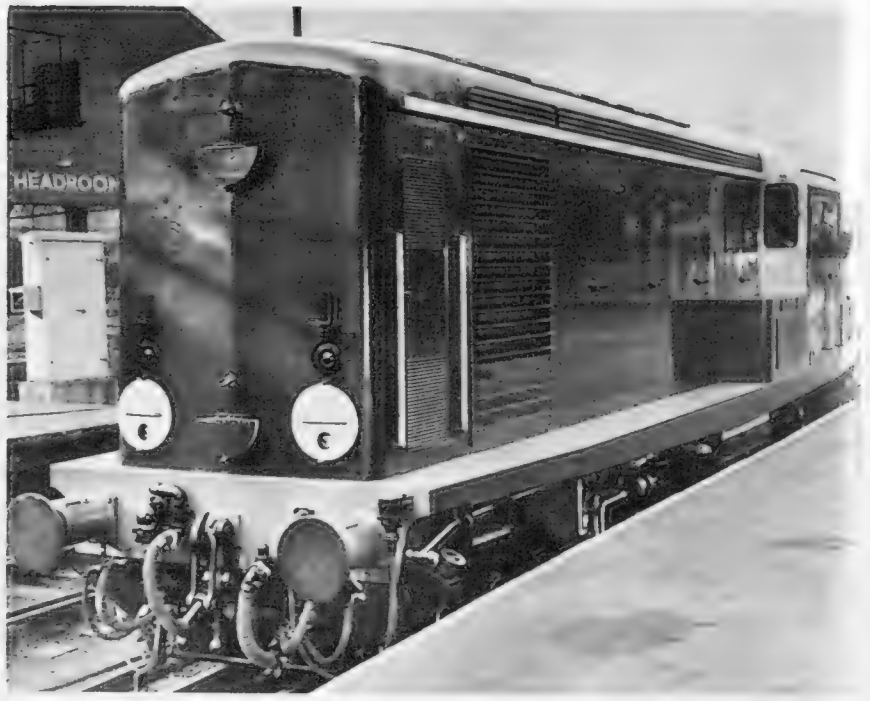


On left—

SPEEDY ENGINE CHANGING

Four aircraft technicians at the Convair Division of the General Dynamics Corporation at San Diego are engaged on one of the quick engine changes which can be performed in only thirty minutes. These changes will be standard with the introduction of the new Convair 880 jet aircraft now in production. The engine-removal techniques were worked out with a full-scale engine pod and specially-developed engine-handling cart. The procedure for the removal involves unfastening eighteen latches, with thumb and fingers, to open the pod's clam-shell doors; removing one bolt and loosening two more, removing two trunions; disconnecting four clamps and five tubes and pulling six electrical plugs. This procedure is reversed after the first engine and cart are pulled away and a second engine and cart put into position. The Convair 880 will be fitted with four General Electric turbojet engines.

The Harvester is seen whisking the leaves into its wire-covered trailer during the demonstration.



MODERNISATION ON BRITISH RAILWAYS

ELECTRIFICATION IN TWO REGIONS: *Left*—A "concreting train" is operating on a stretch of the line between Liverpool Street and the suburbs of the Eastern Region, where electrification work is under way. In the preparation for the erection of the steel structures to carry the overhead electrical equipment, concrete is being poured into the foundation holes previously dug by the mechanical auger. *Right*—The first conductor wire is placed in position near Wilmslow, on the London Midland Region line from Euston.

Two new diesel-electric locomotives have now gone into service with British Railways. *Above, left*, is the first main line diesel-electric locomotive to be delivered to the Eastern Region and it is seen drawing a train from Liverpool Street to Clacton-on-Sea, in Essex. It is a mixed traffic locomotive powered by a 12-cylinder Mirlees diesel engine, developing 1,250 h.p.; it has a top speed of 75 m.p.h. This locomotive, whose number is D5500, is the first of twenty of a type which Brush Traction Ltd., of Loughborough, are producing for the Eastern Region. *On right, above*, is the first of ten diesel-electric BTH (BR Type 1) locomotives which the British Thomson-Houston Company are supplying to the London Midland Region. The locomotives have a horse-power of 800 and a top speed of 60 m.p.h. The entry into service of the new locomotives forms part of the British Railways' modernisation scheme. Further evidence of modernisation is to be seen on the Eastern and London Midland regions, where electrification work is proceeding steadily.

PROGRESS IN INDUSTRY AND ENGINEERING—*A Weekly Survey of Achievement in Britain and Overseas*

OPEN PIT MINE FOR BORON

Boron has over a hundred industrial and scientific uses, ranging from timber preservation to its potential as an essential ingredient of high-energy fuels for jet-driven engines and missiles. The largest known deposits of sodium borate in the world are at Boron, in California, 130 miles north-east of Los Angeles, in the Mojave Desert. The United States Borax and Chemical Corporation has spent over £7,000,000 in constructing an open pit mine and refinery there and after two years it is now ready for full production.

The picture *above* gives a general view of the refinery. In the centre are the four thickener tanks used as settling vessels. They are the largest covered and insulated tanks of their kind in the world, having a capacity of 3,000,000 gallons each. In these the borate solutions are processed and then stored in the two banks of silos on the right. The company's old plant, which will be closed, is in the distance.

The inset picture shows the huge 150-ft.- deep pit from which mining is to take place. The site of the mine and the refinery covers more than eighty acres. Before its construction the ore had to be transported 200 miles by rail for processing.

On left—

MINING CLAY WITH A HOSEPIPE

A prominent sight in mid-Cornwall are the white hills of the china-clay industry. They were visited by the Duke of Edinburgh during his one-day tour of the Duchy of Cornwall this month. In the picture are the workings of the Melbur Clay Pit at Saint Stephens, near Truro. The pit, which was started in 1875, is 230 ft. deep. The extraction of the clay is effected by plying the face of the pit from below with powerful water jets for twenty-four hours a day. The clay water is rivered into a sump and then is pumped into other sumps on the floor of the pit for further refining before the clay is dried in long kilns. The sediment which is left in the first sump, usually in the form of sandy quartz, is taken up the side of the white mound in skips and dumped. These mounds are dotted around the area, and are sometimes called the "Cornish Alps" because of their white appearance. The china-clay industry is now one of Britain's most valuable dollar-earning assets.

FIRING ROCKETS TO TEST THE AERODYNAMIC BEHAVIOUR OF THE B.B.C.'S NEW TELEVISION TOWER AT CRYSTAL PALACE: A travelling cradle carrying rockets and technicians is being hoisted to the top of the 709-ft.-high television mast. During the test a total of eight rockets, each exerting a thrust of half a ton, were fired in quick succession. This caused the top of the tower to deflect 4 ins. from the vertical on each side. *On left*—Members of the National Physical Laboratory team have clambered aboard the cradle for the start of their journey to the top of the mast to fix the rockets. Although the tower deflected up to 4 ins., this was less than expected. It had been anticipated that the tower would move up to 12 ins. Its failure to do so was put down to the fact that only eight of the nine rockets were released. The ninth misfired and, as a result, the pressure was not built up. When the rockets were fired, the designer of the mast, Mr. W. S. Pilecki, was only 25 ft. away from the blasts.

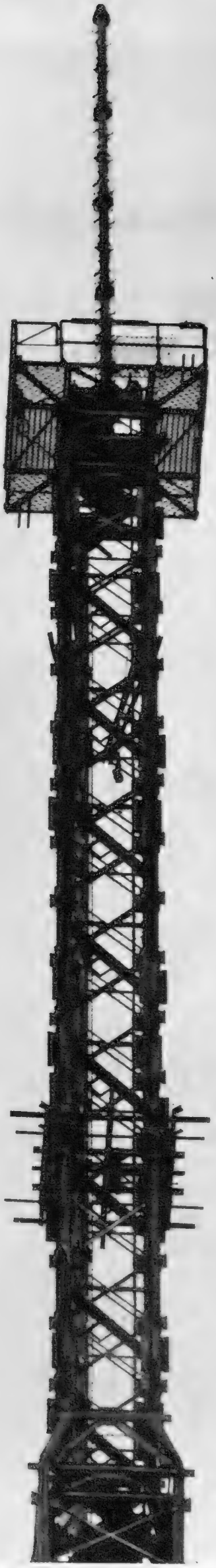
EXPERIMENT ON TV MAST

Rockets are Fired from the New Crystal Palace Tower to Simulate the Effect of Wind

EPARING THE ROCKETS: Two members of the National Physical Laboratory team fix the wiring in the rockets, each of which was about 3 ft. in length. After two trial runs the battery was fired in sequences by remote control from the National Physical Laboratory's mobile laboratory on the ground. *On right*—Mr. V. Nehring, the site engineer, sights a theodolite.

low—

MING THE BLAST: A cameraman poised on the top of a vehicle records the firing of the missiles. The movement measurements were recorded by two accelerometers on the top of the tower. They were transmitted to equipment on the ground.



THE SPURT OF A 30-FT. FLAME: It is shooting from the tower. The rockets were supplied by the Royal Aircraft Establishment. On release, their roar was heard over the greater part of South-East London.

AMATEUR THEATRICALS IN LONDON

A PRODUCTION BY THE W. H. SMITH AND SON'S AMATEUR DRAMATIC SOCIETY: In *Waters of the Moon* are, from left to right, Aerona Channell in the part of Mrs. Whyte, Murray Dear as Colonel Selby and Dorothy Hyde as Mrs. Ashworth. The comedy by N. C. Hunter was given recently by the Amateur Dramatic Society at the Rudolf Steiner Theatre in London. Rona Laurie, who has been associated with the company on many previous occasions, was responsible for the production of the play.

"DON'T STARE AT ME": Ann Woods, on her knees, in the role of Evelyn Daly, points a finger at Michael Jackson (playing John Daly). Seated at the front of the stage at the Rudolf Steiner Theatre are Bill White (Julius Winterhalter) and Mia Hunt (Helen Lancaster). Three performances were given of the comedy.

PLANS FOR A HOLIDAY IN SWITZERLAND: Angela Cullerne-Bown (Tonetta Landi) and Michael Jackson (John Daly) make plans for a holiday together. *Waters of the Moon* was the ninth production of the W. H. Smith and Son's Dramatic Society.

IN A HOTEL ON THE EDGE OF DARTMOOR: Ann Woods (on right) pleads with Mia Hunt and Bill White in this scene from *Waters of the Moon*, which is laid in Devonshire on New Year's Eve.

THE ROYAL VARIETY PERFORMANCE

Her Majesty Sees A Programme Ranging From Ballet to Rock 'n' Roll

MARKOVA IS PRESENTED: The Queen chats to the ballerina, still wearing her costume. On the right, awaiting presentation, are Max Bygraves, Gracie Fields and Frankie Vaughan. In the background Count Basie, the American band leader, and Alma Cogan can be seen. This year's Royal Variety Performance at the London Palladium had an international bill including Judy Garland, Mario Lanza, Arthur Askey, the Crazy Gang, Vera Lynn, Joan Regan and Tommy Steele.

On left—

THE ROYAL PARTY ENTERS THE ROYAL BOX: The Queen Mother, the Queen and Prince Philip take their places. Standing behind Prince Philip is Mr. Prince Littler, who met them at the theatre.

AN ALL-STAR CAST TAKES ITS CURTAIN CALL: The stage is packed with celebrities of the variety world. Behind the all-star line-up at the front are the Tiller Girls, and at the rear is the Morriston Orpheus Choir. Before the Royal arrival the audience was diverted by the Crazy Gang as master and pupils of "Cheam School."

THE COMING OF CHRISTMAS

London and Brighton Prepare for the Festive Season ; Balloons and Illuminations in Two Shopping Areas

THE BALLOON GOES UP : While the police stand by to control the traffic, a gaily-coloured Edwardian-style balloon is hoisted into position to form part of the Christmas decorations in London's Regent Street.

LONDON'S REGENT STREET PREPARES FOR CHRISTMAS : The famous shopping thoroughfare in the West End is decorated for the festive season. This year the decorations consist of a series of sixty-four gaily-decorated Edwardian-style balloons suspended along the street from Piccadilly Circus to Oxford Circus at heights ranging from 25 ft. to 38 ft. They are made of rubberised fabric and are illuminated at night by floodlights. The illuminations were due to be switched on by the Mayor of Westminster on Thursday. The decorations have been arranged by the Regent Street Association and the balloons have been designed by Martin and Jane Priestman ; he is an architect and she a free-lance textile designer. Christmas trees and other attractions add to the traditional festive scene. The balloons were made by Piggott Bros., of Bishopsgate. Last year, the Christmas decorations in Regent Street consisted of a series of "minaret" lanterns each surrounded by aluminium globes.

BRIGHTON IS ILLUMINATED FOR THE WINTER SEASON : A general view looking along Western Road, showing some of the fifty large ornamental lamp-lit arches which form part of the winter illuminations in the heart of Brighton's shopping centre. North Street and East Street are also illuminated. The lights were switched on last week by the Mayor of Brighton, and at the same time shops which had been in darkness also lighted up to enhance the effect. *On left*—Father Christmas looks on as the Mayor turns the switch to inaugurate the illuminations. The group also includes "The Queen of Brilliance" and her attendants. As well as brightening the appearance of the Sussex seaside town during the evenings of the winter months, and especially during the festive season of Christmas, the illuminations give extra light to Brighton's shopping centre. The fifty large ornamental arches have 5,000 coloured lamps.

WINTER IN THE BAY OF NAPLES

An Island Resort as the Tourist Never sees it

During the summer the island of Ischia, in the Bay of Naples, is visited by some 26,000 tourists, but in the winter months this figure dwindles to a few hundreds. It is at this time that the little island seems to rediscover itself. The beaches are deserted, the pleasure boats in the harbour at anchor, but in the markets, streets and shops the local population is alive and secure in its possession. The principal trade is tourism and since the war Ischia has established a keen rivalry with the nearby, better-known island of Capri. Size is an advantage, the area of 18 square miles being three times that of Capri. The resident population of 30,000 spends the winter months enjoying the peaceful charm and excellent wine of the island, preparing for the following summer when once again the large villas will be occupied by wealthy Neapolitan business men and their families, the tiny streets filled with large, shiny automobiles and the steamers from Naples unloading hundreds of visitors every few hours. But that is next year. Meanwhile, the Ischian islanders can rest peacefully in the pale winter sunshine.

ITALIAN VILLAGE LIFE : The streets are wet, but the November sun tries to shine. The people of the isle of Ischia go about their daily routine, the housewife with her basket, the fishermen chatting. One figure is absent—that of the tourist.

ON THE BEACH : The fishermen have returned and now they wait for their mealtime under a mild autumnal sun. In summer Ischia can live on her tourist trade, but during the winter months the island fishermen assume a new importance.

CLOSED CABINS AND EMPTY DECK-CHAIRS : A month or two ago this beach was peopled by hundreds of bathers. Now a passer-by uses the lane of beach huts as a short cut. Above, upon the hill, the luxury villas are shut up and deserted for the winter.

PEACE RETURNS TO A MEDITERRANEAN ISLAND RESORT : There is quietness and solitude as the calm sea laps against the almost deserted beach. *On right*—A woman carries home buckets of drinking water, a reminder of the hardy life the Ischian people lead.

EXPLORERS ALL

Preparations for Antarctica; and the Oldest Member of the Polar Community

M.V. "TOTTAN" SAILS AGAIN FOR THE SOUTH POLAR REGIONS: Relatives and friends of the ship's complement wave good-bye as the vessel draws away from a quay at Southampton. She is bound for the Antarctic with relief personnel for the Royal Society's base at Halley Bay, in the Weddell Sea. This base is not far from Shackleton Base, from which Dr. Fuchs and his party from the Commonwealth Transantarctic Expedition were due to set out last weekend on their journey over the Pole.

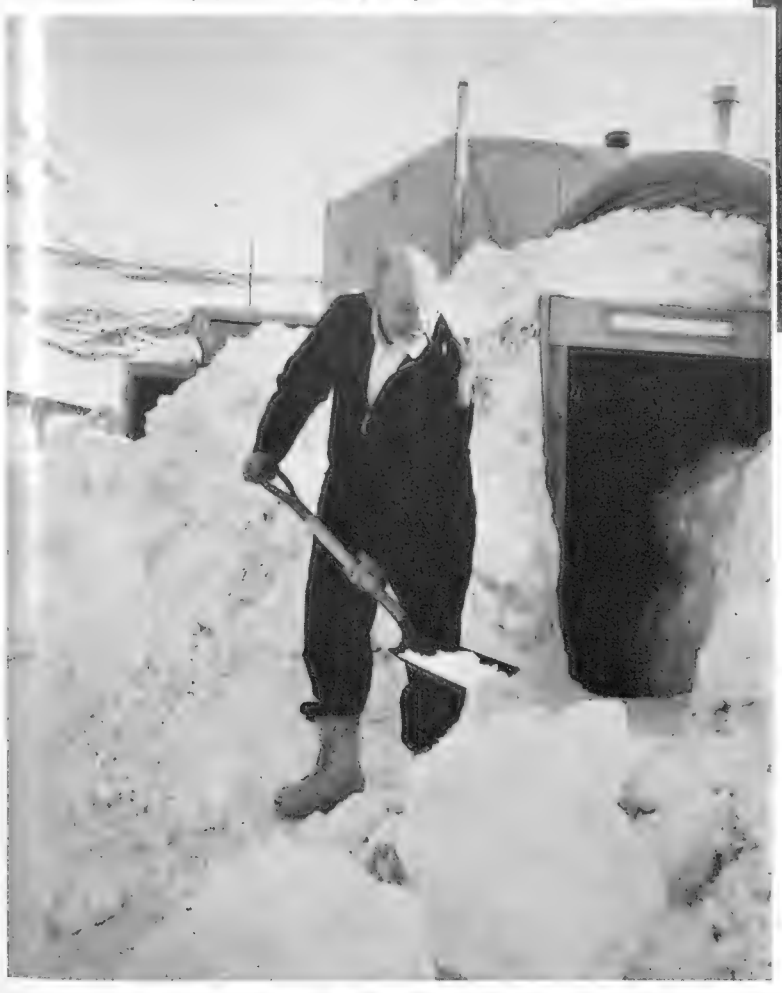
Once again the *Tottan* is heading for Halley Bay, in the Weddell Sea, with a further party for the Royal Society's base there. And once again that *doyen* of polar explorers, Sir Hubert Wilkins, is to be found in familiar surroundings—on the other side of Antarctica at Little America, in the Ross Sea. Many and varied are the projects being undertaken by several nations to open up the Unknown Continent during the International Geophysical Year. In some places special "polar suits" will be the fashion, their purpose being the study of the reactions of the human body in conditions of extreme cold.

But for most of the world the cynosure is Dr. Fuchs and his party which, if all goes according to plan, should have by now made a good start on their attempt to cross the Antarctic continent by way of the Pole. They were due to leave Shackleton base in Vahsel Bay at the end of last week.

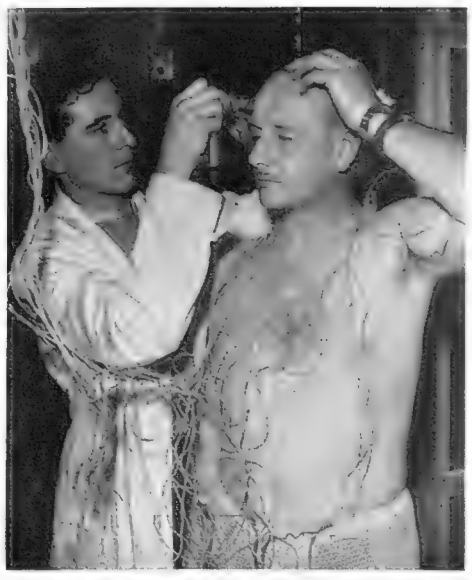
MEMBERS OF THE ROYAL SOCIETY'S EXPEDITION: From left to right they are: Flight-Lieutenant B. K. Brooker, R.A.F., of Wallasey, Cheshire, who will be medical officer at Halley Bay; Mr. B. G. Ellis, of Ealing, meteorologist; Mr. J. A. Smith, of Whitley Bay, Northumberland, also a meteorologist; Sergeant E. Gane, R.A.F., of Bristol, senior wireless operator; Lieutenant J. F. Glennie, R.N., an observer for the Royal Navy—he will make the round trip to Halley Bay and back in *Tottan*; and Dr. A. F. Moore, of the Royal Society, who will also return to Britain with the ship.

On left—

ANTARCTIC CLOTHING: Major James Adam, R.A.M.C., is wearing an Antarctic suit as he kneels beside a tent for polar explorers at a Medical Research Council demonstration in Hampstead, London.



THE VETERAN POLAR EXPLORER: Sir Hubert Wilkins, who is aged sixty-nine, shovels snow outside a hut in the American base at Little America, in the Ross Sea of Antarctica. He is acting as consultant to the United States Expedition there. Born in Australia on October 31, 1888, Sir Hubert first went to the polar regions with the Canadian Arctic Expedition of 1913. He joined the Australian Flying Corps in 1917 and after the First World War was concerned in numerous expeditions to Arctica and Antarctica, in many of which he was a pioneer of polar flights. He commanded the Nautilus Arctic Submarine Expedition of 1931. He was knighted in 1928.



APPARATUS FOR TESTING HUMAN REACTION TO EXTREME COLD: Mr. Laurence Ryan attaches wires to the body of Major Adam at the laboratories of the British Medical Research Council in Hampstead, London. This electrical equipment will be taken by Major Adam to the Antarctic, where he is to join one of the American bases. He will use the apparatus for registering the temperature of the human body in polar regions. Mr. Ryan has been largely responsible for the design and development of the equipment.

FASHIONS IN UNDERWEAR FOR EXPLORERS: The vest being buttoned by Major Adam and the underpants he is wearing below are made of copper wire. These garments will allow the temperature of any part of the body to be taken. The wire mesh is connected with a control box and small battery. Major Adam, who is shortly leaving Britain for America, is one of four physiologists planning to test the reactions of the human body at the American Antarctic base.

TRADING RESULTS AND CAR PRICES

Finance in the Motoring and Petrol Industries; A Means Test on Motoring Defendants; Shell and "Applicational Research"; and Looking Ahead to the "Monte."

By "THE SPHERE" MOTORING CORRESPONDENT

DO not be surprised if there are more car price increases in the spring or early summer. There was much talk of this possibility at the Scottish Motor Show in Glasgow. "Our profit margin is dangerously narrow," one British car manufacturer told me, "and increases in the cost of labour and materials are still catching up on us." With the motor industry in its present buoyant condition I was a little surprised by that remark. It assumed greater significance when I read later about the loss of £269,000 incurred by one of the "Big Six"—the Rootes Group—in the financial year ended July 31 last. This loss compared with a profit of £1,002,000 in the previous year. Trading profit slumped from £3,000,000 to £823,000.

Sir William Rootes puts most of the blame on petrol rationing, which in the case of the Rootes Group coincided with the introduction of a new model and the consequent writing-down of the prices of the old range.

I am glad to report that this enterprising family concern is, in the current financial year, sharing the industry's general well-being. In the first three months there was a trading profit of £500,000. The trading results of the British Motor Corporation, the Standard Motor Co. and Lucas also reflect the motor industry's recovery from the Suez slump. Standard, in the year ended August 31, increased their profit from £806,788 to £877,520 and maintained their dividend at 8 per cent. (Rootes have had to halve theirs to 4 per cent.). B.M.C. ran out with a profit of £11,219,000 after incurring a loss on the first six months. Their profit compares with £14,360,000 in the previous twelve months. At £5,896,000, Lucas profits were £527,000 higher and they held their dividend at 7½ per cent.

In an age of ever-rising prices the recent reduction of ¾d. a gallon in the retail cost of petrol came as a welcome surprise to motorists. With premium grade motor spirit down to 4s. 8¾d. in the London area and in other big population centres, petrol is now within 1¼d. of its pre-Suez price. There have been six price cuts since April but the recent decrease was the first price change since a halfpenny a gallon was knocked off on July 2.

A TWO-MONTH TRIP FOR MR. B. G. ROOTES: The thirty-eight-year-old managing director of Rootes Ltd., is making a 40,000-mile tour of the Far East and the U.S.A. He is the sales and export head of the Group, and his aim during the trip is to inspect the Rootes group sales organisation overseas and to help boost exports, now running at a record level.

I should imagine that the first reaction by motorists in general to the decision of the Newcastle-on-Tyne magistrates to impose a kind of means test on motoring defendants was the same as mine: annoyance and exasperation at this latest "insult" to the motoring public. But when you come to think of it, this isn't such a bad idea, especially now that the Newcastle justices have promised not to let the police do any snooping to find out what a defendant earns.

The matter came up when a man wrote pleading guilty to speeding. The case was being dealt with under the new procedure prescribed by the Magistrates' Courts Act, 1957. This enables justices to deal with certain motoring offences in the absence of both the defendant and the police witness. The magistrates' clerk at Newcastle said the motorist whose case was before them could be fined up to £20, according to the circumstances of the case and his means. "But we don't know his means," he added. It would help the court, he said, if in future the police could include in their statement of facts some indication of a defendant's means.

The A.A. do not like the idea at all, and are seeking an opportunity of clearing the point by a test case. "The Act makes it quite clear," an A.A. official said, "that only a concise statement of the facts of the alleged offence is admissible. The suggestion that a defendant who does not supply information about his means may suffer a heavier penalty seems to us most improper."

All the same, I think the Newcastle justices are right in trying to relate their motoring fines to the defendants' financial standing. If a rich company director and a struggling apprentice were both fined £15 for doing 60 m.p.h. along the same stretch of restricted road in identical conditions, justice, in my opinion, would not be done.

I spent a day recently at the Shell Research Centre at Thornton-le-Moors, in Cheshire. This establishment, which adjoins Shell's great Stanlow refinery, is concerned with what it calls applicational research. It studies—and tries to improve—the performance of Shell products in service. I saw a wide range of tests being carried out on motor fuel, lubricants and other products.

The tests which fascinated me most were those in which radioactive piston rings are used to measure engine wear. This is part of Thornton's research in the lubrication field. It is being done with the co-operation of atom scientists at Harwell, where iron piston rings sent from Thornton are "cooked" in the atomic pile. They have been used for some time in bench tests and in cars whose sumps are later drained and their contents carefully analysed. The idea is that as tiny particles of iron are worn off the radioactive ring they get carried away in the lubricating oil. The extent to which this oil is "contaminated" gives a measure of the rate of wear. This varies considerably with engines working in different conditions and using different kinds of oil.

For the latest form of this "atomic" research at Thornton a Standard Vanguard estate car is used. It has been fitted up, at a cost of thousands of pounds, with equipment which records the rate of engine wear as the car is going along. It is the first mobile laboratory of its kind in the world. The engine oil is pumped to a small tank in the back of the car. This is screened by a heavy cylinder of lead. The Gamma rays given off by the radioactive particles of iron in the lubricant are turned into flashes of light by a crystal. These light flashes are amplified and sent in the form of impulses to a pen which records the rate at which fresh radioactive particles are entering the crank-case; in other words, it records the rate of engine wear.

I went for a drive in this remarkable car. The way in which the electronic pen indicated an increased rate of engine wear when we went faster was almost uncanny.

The R.A.C., controlling body for motor sport in Britain, has announced the names of the drivers it has selected for the ninety-five places allotted to Britain in next year's Monte Carlo Rally. The Rally is to be held from January 21 to January 29. It will be the first for two years, as this year's event was cancelled because of petrol rationing.

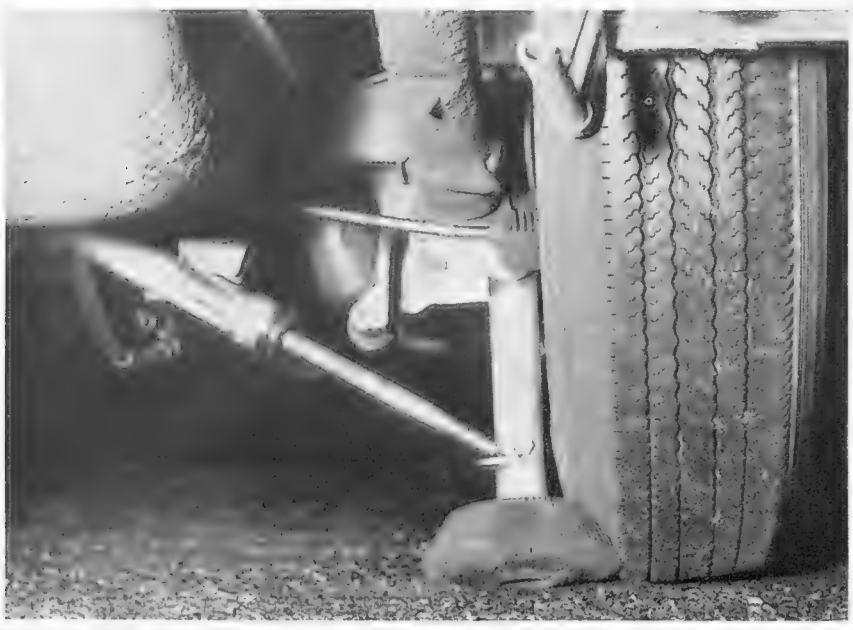
As usual, Britain's Rally allocation was considerably less than the number of applications. So the R.A.C. have picked thirty-seven reserve drivers, who may be able to compete if some of the other countries taking part do not take up their full allocations. No fewer than fifty-six British crews will start from Glasgow, twenty-eight from Paris, seven from Oslo, two from Lisbon, one from Munich and one from The Hague. Among the Glasgow starters are two former winners of the "Monte": Ronnie Adams and Sydney Allard. There will be six all-woman teams from Britain, including Mrs. Nancy Mitchell, Europe's woman rally champion, Miss Pat Moss, Miss Mary Handley-Page (who is receiving tuition from Miss Sheila Van Damm, now retired from motor sport) and Mrs. Ann Hall.

The Institute of Civil Engineers recently staged in London a conference which had as its theme "The Highway Needs of Great Britain." It lasted three days and a great deal of good sense was talked by men who are really knowledgeable about roads. The Institute stated that it organised the conference for a number of reasons. One was the present "squandering of wealth and life through traffic congestion." Another was the fact that even at the present rate of traffic increase, the number of vehicles on the roads nine years from now will be exactly double the number at present. "Our yearly expenditure on roads of £1·4 per head of population," said an Institute official, "is only about half that in ten other European countries, whose average expenditure is £2·7."

One of the most important papers was a joint affair by Dr. W. H. Glanville and Dr. R. J. Smeed, who run the Road Research Laboratory for the Department of Scientific and Industrial Research. They stated that the economic cost of road accidents in Britain (without including any figure for the human suffering involved) was increasing at the rate of £7,000,000 a year. Eight thousand miles of roads in Britain were now loaded beyond their design capacity. It would cost £420,000,000 to bring these roads up to date; but with the estimated increase in traffic it would cost £1,200,000,000 to catch up if we waited ten years to put the road system in order.

In another separate paper Dr. Glanville had something interesting to say about car insurance. He suggested that the insurance companies should carry out more research on the subject of "accident proneness." If an infallible method of detecting accident-prone drivers were found, he asked, how far would it be possible to deny these people the privilege of driving? "Although insurance premiums are sometimes increased," said Dr. Glanville, "no really effective action is taken to prevent known accident 'repeaters' from continuing to drive; and people continue to drive who are recorded as having had as many as ten or even fifteen accidents in a few years."

Mr. Christopher Brunner, vice-chairman of the British Road Federation and a director of Shell-Mex and B.P. Ltd., made the point that the inadequacy of Britain's roads is costing the country £500,000,000 a year, which is equivalent to the cost of running the Royal Air Force.



SOLVING THE SQUEEZE-IN PARKING PROBLEM: The pictures show the "Sidler," a device invented by Archie Butterworth, a racing engine expert, for parking in narrow spaces. The new device is in the form of a retractable undercarriage at the rear of the car and is hydraulically operated. To park a car with the device the front end is driven into a confined space with the rear portion protruding into the road, and a button is pressed on the dashboard to release a control valve. Briefly, the rollers lift the rear wheels from the road slightly and, driven by them, run the car in. Low gear swings the car one way, reverse the other.

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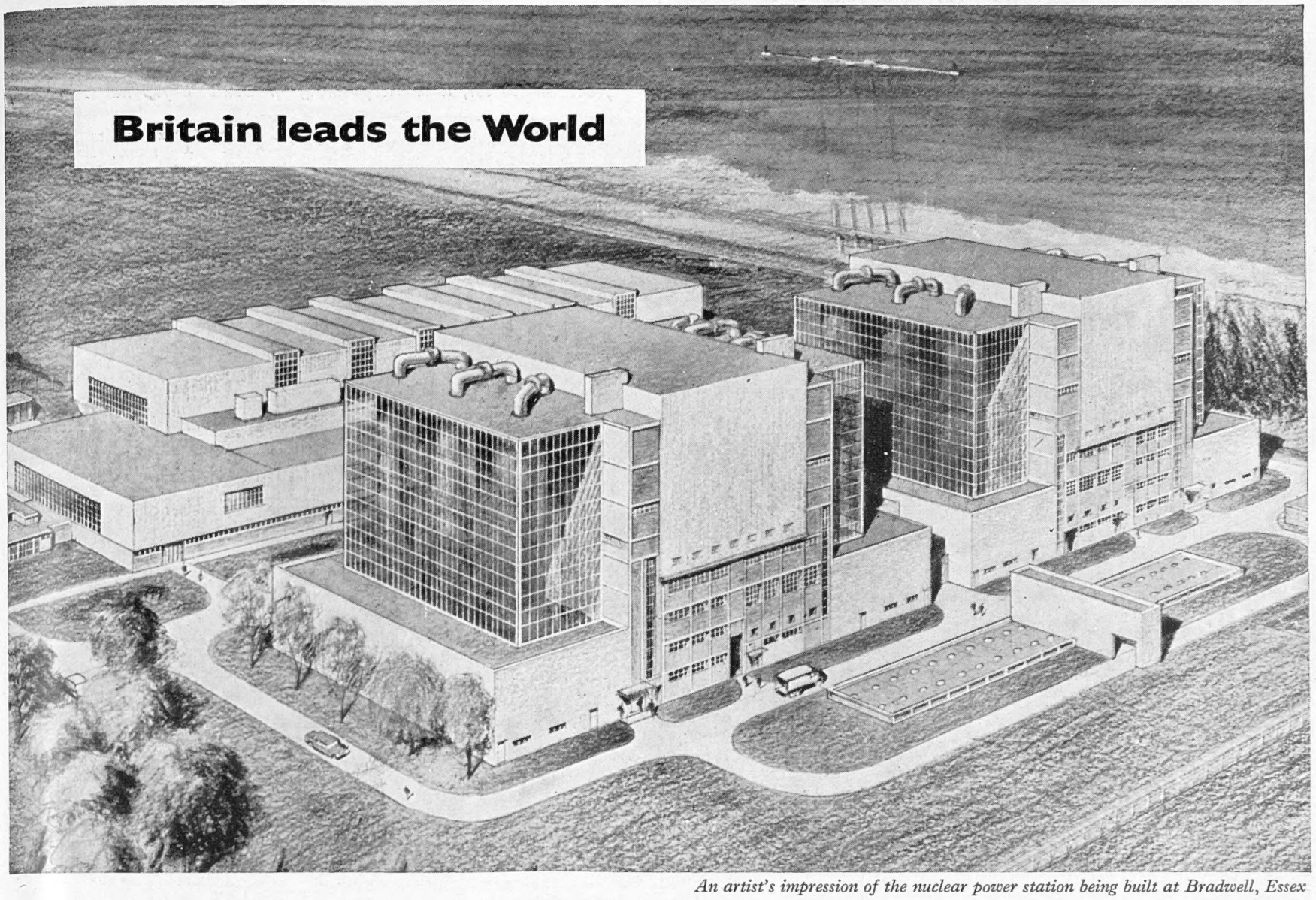


An artist's impression of the nuclear power station being built at Bradwell, Essex

Nuclear Power will work for us all

In the next decade millions of pounds will be spent in developing Britain's national electricity supply; on generation; on extending the Grid and Supergrid systems of main transmission lines; and on strengthening and extending existing distribution networks. This expansion is essential if Britain's future prosperity is to be safeguarded.

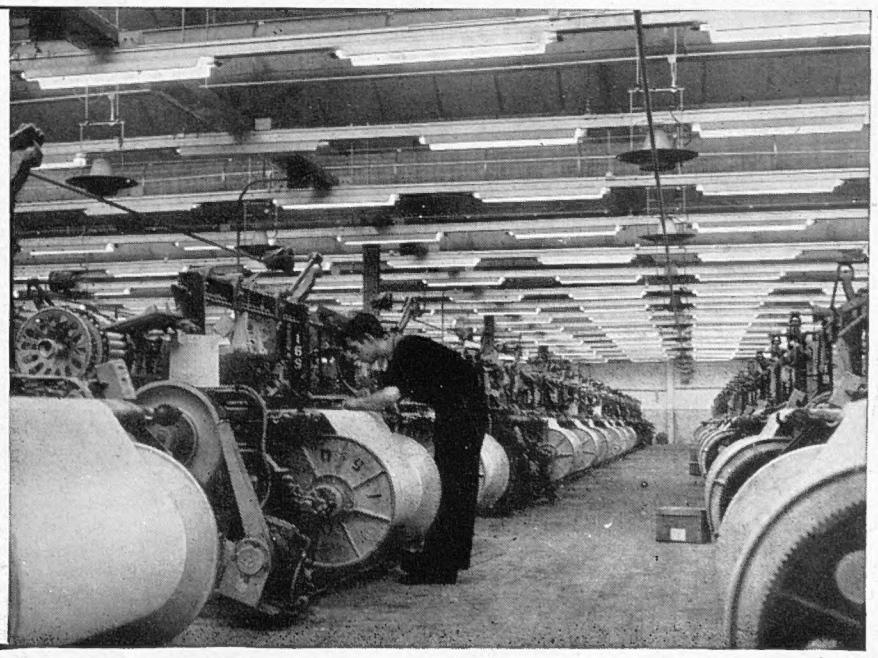
An important part of the expansion plan is the construction of enough nuclear power stations to provide 5 to 6 million kilowatts of power. But nuclear power stations cannot be built just anywhere. They must be near a very large water supply; they need very firm foundations to support the abnormally heavy weight of the nuclear reactors and associated plant; and for economic reasons, they must be fairly close to the load to be supplied.

Because of this, and the fact that about 40% of total electricity consumption is in the southern half of the country, most of the nuclear power stations will be sited away from the major coalfields. The vast quantities of cooling water needed are rarely available elsewhere than on the coast or large estuaries. The existence of adequate foundations at possible sites can only be proved by trial borings.

Power stations, however, whether of nuclear or conventional type, are of no use without some means of getting the electricity to the consumer; and under modern conditions this means the Grid and Supergrid. Planned since the war to reinforce the 132,000 volt Grid, the 275,000 volt Supergrid will be a complementary part of Britain's nuclear power drive, connecting power stations to supply points feeding the distribution network.

The Grid and Supergrid lines are the outward and visible signs of the rejuvenation of Britain's power arteries. They are the lifelines ensuring an increasingly prosperous future.

The pylons of Britain not only bring power to our factories, but also the lighting and ventilation that have made modern factories cleaner and brighter and happier places to work in.



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This series of advertisements is being published so that everyone will understand the nation's electric power programme and why it is necessary to have not only electric power stations but also pylons to carry the power where it is needed.

Here's the latest in Underwear . . . . it's

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QUICK DRY · EASY CARE
SHRINK RESISTANT

This all the year round Underwear has all the virtues of compromise, for it's a 50-50 blend of Tricel Fibre and Cotton specially treated to reduce shrinkage to an absolute minimum. Drip-dries very quickly. Soft yet extremely durable. The Trunks have a kindly gripping elastic waistband. Two styles of Vest. Prices for sizes 34" - 42" :

Trunks, also Athletic style Vest . . . **10/-**

Vests with round neck and short sleeves **12/-**

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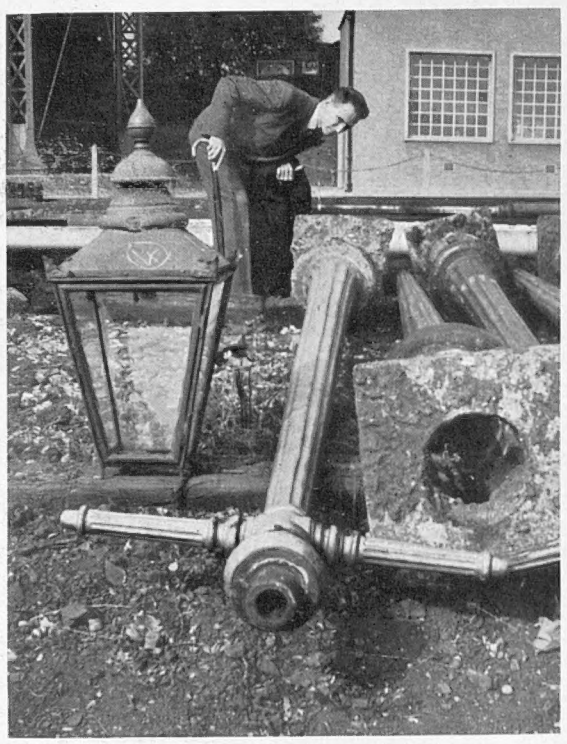
Branches throughout London and Principal Cities

NEW HOMES FOR OLD GAS-LAMPS

Although the Familiar Victorian Gas-lamp is Gradually Disappearing from the Street, it is Reappearing in Some Unfamiliar Places

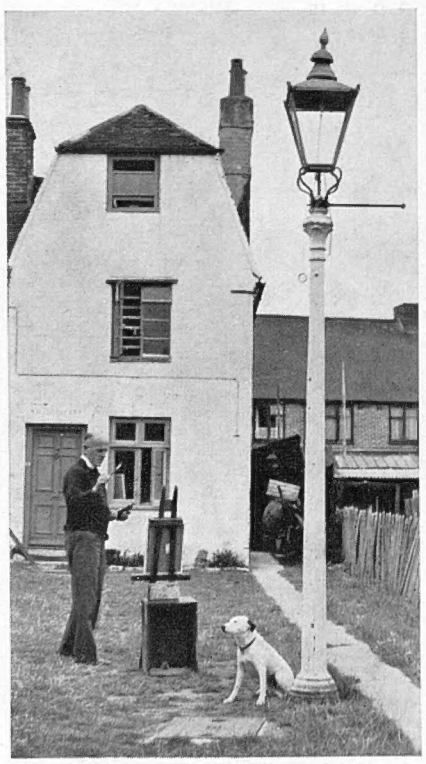


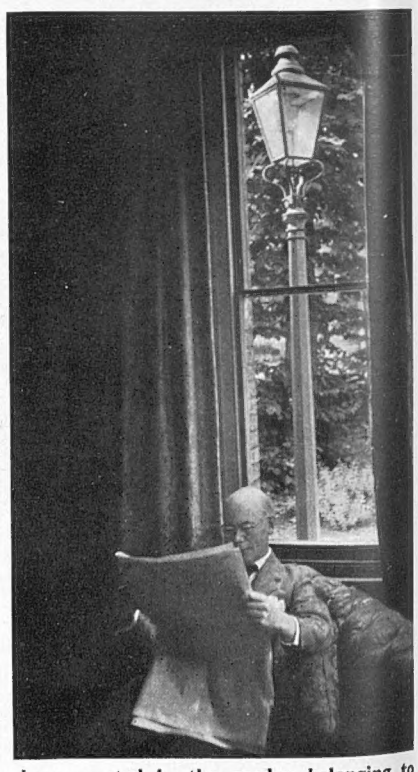
Taxi-drivers in Richmond, Surrey, no longer raise their eyebrows in astonishment these days when hailed by a client clutching the top of an old Victorian lamp-post. For "Lampomania"—lamp-post collecting—has become the new hobby for hundreds of people, both in town and country, who are loath to see these old lamps pulled down to make way for new concrete structures. Although the Victorian lamps are continually being replaced, they are not lost for ever. Transported to the gas-works at Richmond, they are stored for possible sale to lamp enthusiasts, who adapt them to a variety of uses. Those in favour of retaining the Victorian lamps argue that they fit more gracefully into the scene, whereas the new structures look grossly out of place. A lamp-post top costs £2, the post itself £3, and the arm bracket 5s.

WHICH SHALL IT BE? A prospective customer at the Richmond gasworks, in Surrey, inspects one of the posts of an old Victorian gas-lamp which is for sale after being uprooted from the street. At the gasworks obsolete lamps are kept for possible sale to the public. They are looked after by a store-keeper, who often helps the customer make his final choice of lamp.

On right—

AN AVENUE OF LAMPS: One of the more enterprising collectors, Mr. A. R. Wright, of Hartley Wintney, Hants, acquired six old gas-lamps and had them erected along the drive leading to his home, lit by electricity. The posts are painted white.





GAS-LAMPS IN THE GARDEN: *Left*—One has been erected in the garden belonging to Mr. Leslie Carnegie, a Whitstable artist, seen here at work on a painting. At night the lamp helps to light the path to his house. *Right*—Mr. J. B. Gold, a Kew architect, sits at home reading by the light of an old lamp erected outside the window.

VANTELLA Regd. SHIRTS

with VAN HEUSEN COLLARS & CUFFS

NOTE ON NECKBANDS

THE neckband of a good shirt is essentially the most important thing about it—fit and hang alike depend upon it. It has to be correctly curved and shaped, it has to be accurate to size, and it must be robust enough and resilient enough to stay that way, laundries, home or otherwise, notwithstanding.

It is because the Van Heusen neckband of every Vantella shirt does possess these qualities in the fullest measure that the wearer always looks just right—he is comfortable within himself, and confident in his appearance, and a credit to his tailor. And when at long last a neckband may need replacing, any good outfitter can have this done at short notice and at modest cost.

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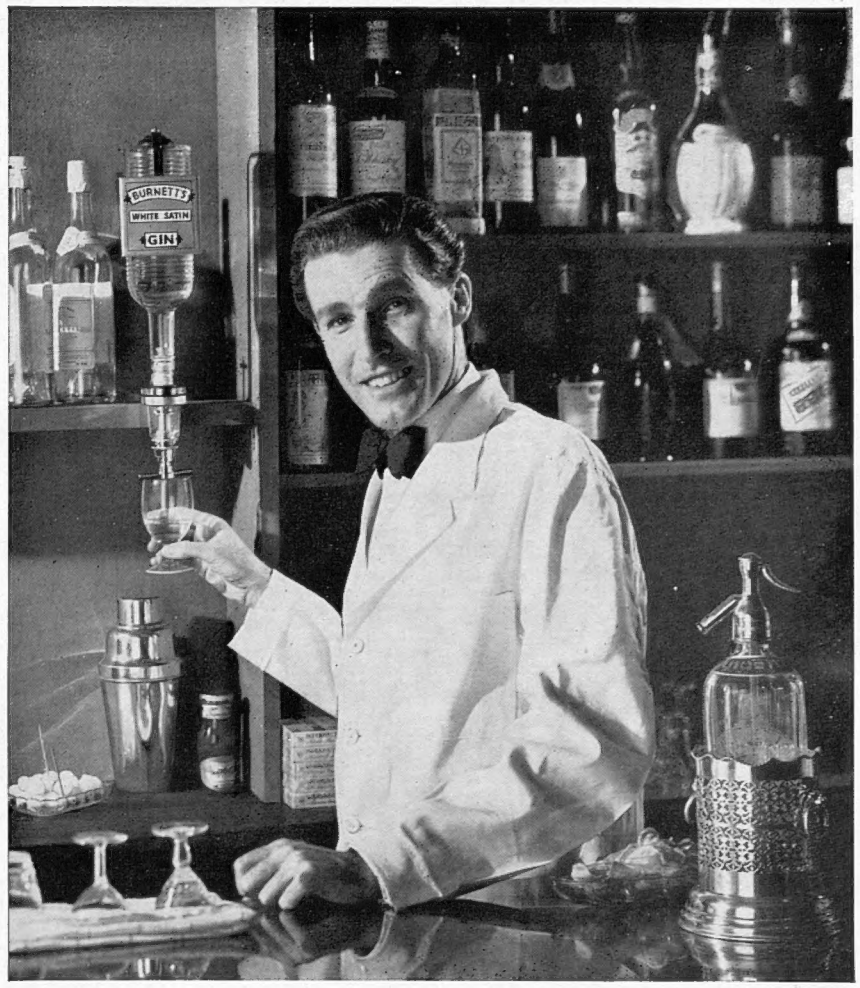

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Put Burnett's "White Satin" Gin on your next order. Available in all sizes, and the same price as ordinary gins.

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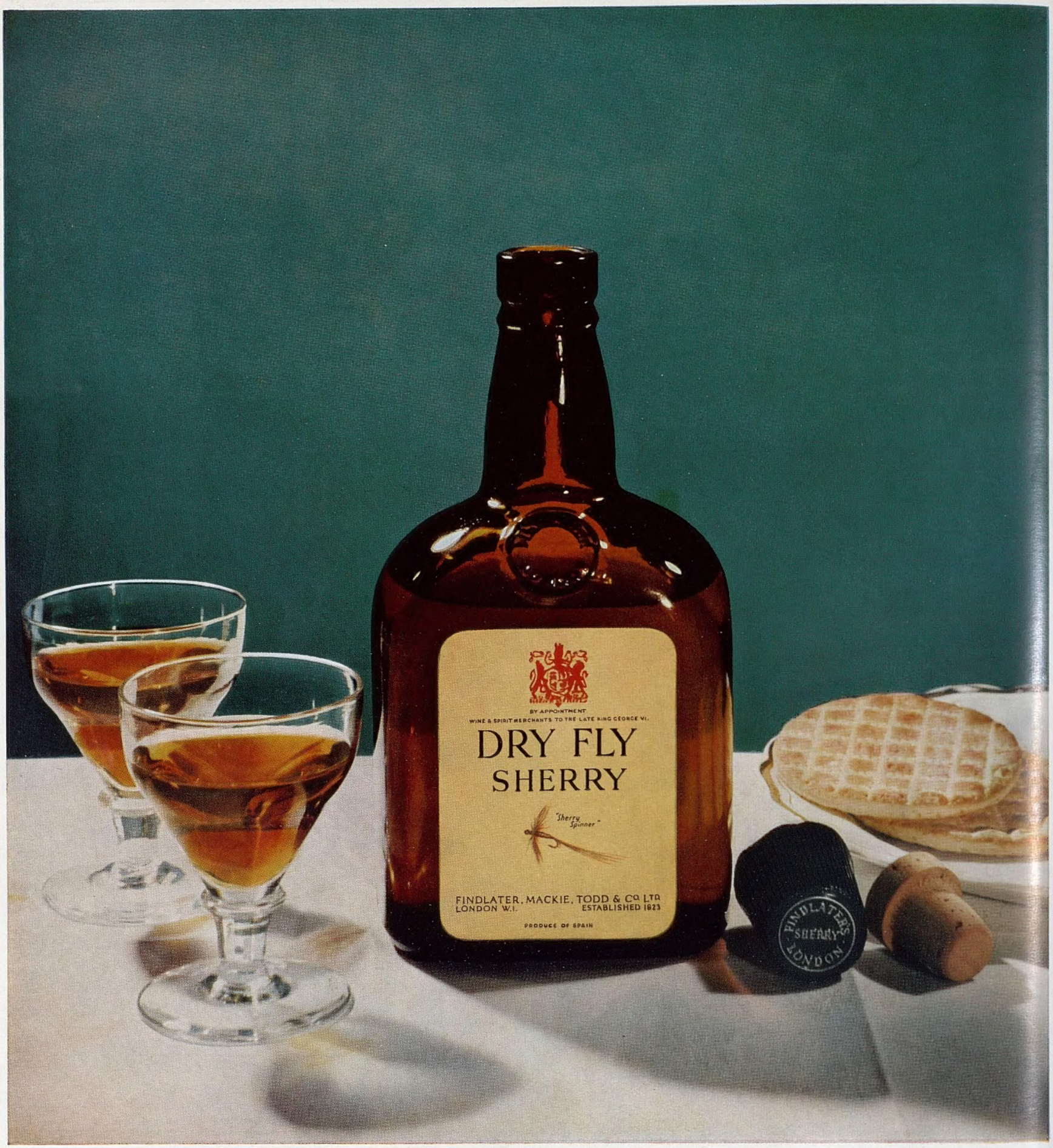

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